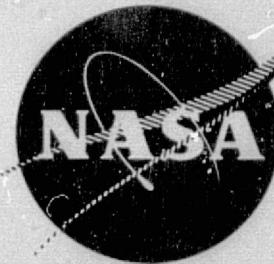


## **General Disclaimer**

### **One or more of the Following Statements may affect this Document**

- This document has been reproduced from the best copy furnished by the organizational source. It is being released in the interest of making available as much information as possible.
- This document may contain data, which exceeds the sheet parameters. It was furnished in this condition by the organizational source and is the best copy available.
- This document may contain tone-on-tone or color graphs, charts and/or pictures, which have been reproduced in black and white.
- This document is paginated as submitted by the original source.
- Portions of this document are not fully legible due to the historical nature of some of the material. However, it is the best reproduction available from the original submission.



# DIRECTORY OF AEROSPACE SAFETY SPECIALIZED INFORMATION SOURCES (Volume Two)

by Richard I. Rubinstein

James J. Pinto

Sanford Z. Meschkow

Science Information Services Department

Franklin Institute Research Laboratories

20th and the Parkway

Philadelphia, PA 19103

prepared for

Aerospace Safety Research and Data Institute

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Lewis Research Center

Contract NAS 3-19082

April, 1976

George Mandel, Project Manager

(NASA-CR-134929) DIRECTORY OF AEROSPACE  
SAFETY SPECIALIZED INFORMATION SOURCES,  
VOLUME 2 (FRANKLIN INST. RESEARCH LABS.,  
PHILADELPHIA) 246 P HC \$8.00 CSCL 01C

N76-25153

UNCL AS

G3/03 42226



1. Report No. NASA CR-134929	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle <b>Directory of Aerospace Safety Specialized Information Sources (Volume Two)</b>		5. Report Date April 1976	
		6. Performing Organization Code	
7. Author(s) Richard I. Rubinstein, James J. Pinto and Sandford Z. Meschkow		8. Performing Organization Report No.	
9. Performing Organization Name and Address Science Information Services Department The Franklin Institute Research Laboratories 20th and Benjamin Franklin Parkway Philadelphia, PA 19103		10. Work Unit No.	
		11. Contract or Grant No. NAS 3-19082	
12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Washington, D.C. 20546		13. Type of Report and Period Covered	
		14. Sponsoring Agency Code	
15. Supplementary Notes Project Manager - George Mandel Aerospace Safety Research and Data Institute, Lewis Research Center, Cleveland OH 44135			
16. Abstract This directory is a companion volume to the <u>Directory of Aerospace Safety Specialized Information Sources</u> (NASA CR-121206, October 1973). The purpose of both publications is to make available to the aerospace and transportation safety community a handbook of organizations and experts in specific and well-defined areas of safety technology. It is designed for the safety specialist as an aid for locating both information sources and individual points of contact (experts) in engineering related fields. The file covers sources of data in aerospace design, tests, and operations, as well as information on hazard and failure cause identification, accident analysis, and materials characteristics. Other related areas include the handling and transportation of hazardous chemicals, radioactive isotopes, and liquified natural gases.  These 159 organizations and consultants and approximately 580 staff members should provide technical information in the form of documentation, data and consulting expertise. These will be sources that have assembled and collated their information, so that it will be useful in the solution of engineering problems. One of the goals of the project is to provide a consolidated listing and description of information resources primarily in the United States that have and are willing to share data of value to the aerospace safety community.			
<b>ORIGINAL PAGE IS OF POOR QUALITY</b>			
17. Key Words (Suggested by Author(s)) Aerospace Engineering Accident Investigation Hazards Indexes (Documentation) Personnel Cargo	18. Distribution Statement Transportation Safety Safety Management Unclassified - Unlimited		
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages	22. Price*

\* For sale by the National Technical Information Service, Springfield, Virginia 22151

## TABLE OF CONTENTS

INTRODUCTION . . . . .	xi
A-T-O Inc. <i>see</i> American LaFrance Inc. . . . .	13
Advisory Center on Toxicology . . . . .	1
Aeronutronic Ford Corp. Safety Engineering Section. . . . .	2
Aerospace Corp., Energy and Transportation Division . . . . .	3
Aerospace Structures Information and Analysis Center. . . . .	4
Air Force <i>see</i> Aerospace Structures Inform. and Analysis Center. . . . .	4
Airport Operators Council International . . . . .	5
Allegany Ballistics Laboratory. . . . .	6
Aluminum Association, Inc. . . . .	8
Amax, Inc. <i>see</i> Climax Molybdenum Co. . . . .	40
American Astronautical Society. . . . .	9
American Bureau of Shipping . . . . .	10
American Ceramics Society, Inc. <i>see</i> Phase Diagrams for Ceramists. . . . .	137
American Foundrymen's Society . . . . .	11
American Inst. of Aeronautics and Astronautics, Inc., Tech. Inform. Service. . . . .	12
American LaFrance Inc. . . . .	13
Armed Forces Institute of Pathology . . . . .	14
Army Environmental Hygiene Agency, Laser-Microwave Division . . . . .	15
Army Materiel Command Safety Office . . . . .	16
Arthur D. Little, Safety and Fire Technology Unit . . . . .	17
Atlas Testing Laboratories, Inc. . . . .	19
Auburn Univ., Materials Engineering Dept. . . . .	20
Austin Research Engineers, Inc. . . . .	21
Automation Industries, Inc. <i>see</i> Vitro Laboratories. . . . .	172
Aviation Safety Institute . . . . .	22
Aviation Simulations International. . . . .	23
Aviation Systems Command Reference Library. . . . .	24
Barson, J. M., Consultant . . . . .	25
Bartlesville Energy Research Center . . . . .	26
Battelle Memorial Inst. Library and Information Services . . . . .	27
<i>see also</i>	
Oil and Hazard. Material Tech. Assist. Data Sys. . . . .	133
Cobalt Information Center. . . . .	42
Becker, Herbert, Consultant . . . . .	28
Benet Laboratories, Technical Information Service Office. . . . .	29
Boeing Aerospace Co. Experience Analysis Center . . . . .	30
Product and System Safety Organization . . . . .	31
Safety Engineering . . . . .	32
Sneak Circuit Analysis Group . . . . .	33
Boeing Vertol Co., Product Assurance and System Safety. . . . .	34

Bolt Beranek and Newman, Inc.	36
California Institute of Technology <i>see</i> Jet Propulsion Laboratory	91
Canale Research	37
Center for Short-Lived Phenomena	38
Church, J. M., Consultant	39
Climax Molybdenum Co.	40
Coast Guard, Cargo and Hazardous Materials Division	41
Cobalt Information Center	42
Commission for the Advancement of Public Interest Organizations	43
Comprehensive University of Dayton On-Line Services	44
Compressed Gas Association, Inc.	46
Consumer Product Safety Commission	47
Cordon International Corporation <i>see</i> Cosmodyne	49
Cosmodyne	49
Crane Packing Company	50
Cranston Research Inc.	51
Cryogenic Consultants, Inc.	53
Cryptanalytic Computer Services, Inc.	54
Dalton Research Center	55
Dept. of Agriculture Forest Service <i>see</i> Forest Fire Information Project	66
Dept. of Defense	
<i>see</i>	
Electronic Properties Information Center	60
Government-Industry Data Exchange Program	72
Nondestructive Testing Data Support Center	122
Plastics Technical Evaluation Center	140
Dept. of Transportation	
<i>see</i>	
Office of Hazardous Materials	130
Federal Highway Administration	64
Dept. of the Army	
<i>see</i>	
Army Environmental Hygiene Agency, Laser-Microwave Div.	15
Army Materiel Command Safety Office	16
Aviation Systems Command Reference Library	24
Picatinny Arsenal, Sci. and Tech. Inform. Div.	138
U.S. Army Agency for Aviation Safety	154
U.S. Army Fuels and Lubricants Research Lab.	155
Dept. of the Interior <i>see</i> Earth Resources Observation Systems Center	57
Dept. of the Navy	
<i>see</i>	
Lightning and Precipitation Static Test Lab.	96
Naval Air Engineering Center	117
Naval Research Laboratory	118
Naval Weapons Support Center	119
Pennsylvania State Univ., Applied Research Laboratory	136
Duke Univ., Eye Center	56

ESIS, Inc. <i>see</i> International Safety Academy . . . . .	90
Earth Resources Observation Systems Data Center . . . . .	57
Eastern Environmental Radiation Facility . . . . .	59
Electronic Properties Information Center . . . . .	60
Energy Research and Development Adm.	
<i>see</i>	
Bartlesville Energy Research Center . . . . .	26
Oak Ridge Assn. Univ. REAC/TS . . . . .	128
Environmental Protection Agency	
Office of Radiation Programs . . . . .	62
<i>see also</i>	
Eastern Environmental Radiation Facility . . . . .	59
Technical Assistance Data System . . . . .	153
Exxon Research and Engineering Co. <i>see</i> Government	
Research Laboratory . . . . .	74
Federal Aviation Administration, Office of Aviation Medicine. . . . .	63
Federal Highway Administration . . . . .	64
Federal Railroad Administration <i>see</i> Railroad Research	
Information Service . . . . .	143
Food and Drug Administration, Poison Control Program. . . . .	65
Ford Motor Co. <i>see</i> Aeronutronic Ford Corp. Safety	
Engineering Section . . . . .	2
Forest Fire Information Project . . . . .	66
Franklin Institute <i>see</i> Franklin-Hahnemann Institute . . . . .	67
Franklin-Hahnemann Institute . . . . .	67
Garbell Research Foundation . . . . .	68
General Electric Co.	
High Voltage Laboratory . . . . .	69
<i>see also</i>	
Superconductive Materials Data Center . . . . .	151
Valley Forge Space Center, Plastics & Advanced	
Comp. Lab. . . . .	170
George Washington Univ., School of Engineering and	
Applied Science . . . . .	70
Georgia Inst. of Technology, Engineering Experiment Station . . . . .	71
Government-Industry Data Exchange Program . . . . .	72
Government Research Laboratory . . . . .	74
Hahnemann Medical College & Hosp. <i>see</i>	
Franklin-Hahnemann Inst. . . . .	67
Hazards Research Corporation . . . . .	75
Health Resources Administration <i>see</i> National Center	
for Health Statistics . . . . .	109
Health Service Plan of Pennsylvania <i>see</i>	
Franklin-Hahnemann Inst. . . . .	67
Hercules Inc. <i>see</i> Allegany Ballistics Laboratory. . . . .	6
IIT Research Institute . . . . .	76
Illinois Institute of Technology	
<i>see</i>	
IIT Research Institute . . . . .	76
Institute of Gas Technology . . . . .	81

Indiana Univ.	
Physiology Department	78
<i>see also</i> Naval Weapons Support Center	119
Industrial Risk Insurers	79
Informatics, Inc. <i>see</i> Technical Assistance Data System	153
Institute of Fracture and Solid Mechanics	80
Institute of Gas Technology	81
Institute of Safety and Systems Management	
Research Center	82
Safety Center	84
Traffic Safety Center	85
International Association of Chiefs of Police	86
International Association of Fire Chiefs, Inc.	87
International Conference of Building Officials	88
International Planetary Patrol	89
International Safety Academy	90
Jet Propulsion Laboratory	91
John S. Leak, Consultants <i>see</i> Leak, John S., Consultants	95
Joint Industrial Council	92
Knowledge Availability Systems Information Center	93
Leak, John S., Consultants	95
Lehigh Univ. <i>see</i> Institute of Fracture and Solid Mechanics	80
Lightning and Precipitation Static Test Laboratory	96
Lightning and Transients Research Institute	97
Lockheed Palo Alto Research Lab. <i>see</i> Lockheed Radiation Physics Group	98
Lockheed Radiation Physics Group	98
Los Alamos Scientific Laboratory, Cryogenic Engineering Section	99
M.A.G. Consultants, Inc. <i>see</i> Garbell Research Foundation	68
Manufacturing Chemists Association, Inc., Information Services	100
Massachusetts Inst. of Technology, Department of Mechanical Engineering	101
McDonnell Aircraft Co., Lightning Simulation Laboratory	102
Metals Properties Council, Inc.	103
Monsour Medical Foundation <i>see</i> Commission for the Adv. of Publ. Interest. Organization	43
NASA	
<i>see</i>	
American Inst. of Aeronautics and Astronautics, Inc.	
Tech. Inform. Center	12
Boeing Aerospace Co., Safety Engineering	32
Government-Industry Data Exchange Program	72
Jet Propulsion Laboratory	91
Knowledge Availability Systems Information Center	93
World Data Center A: Rockets and Satellites	174
National Academy of Sciences <i>see</i> World Data Center A: Rockets and Satellites	174

National Bureau of Standards	
Center for Fire Research . . . . .	104
Fire Research Information Services . . . . .	106
Mechanical Properties Section. . . . .	107
<i>see also</i>	
Phase Diagrams for Ceramists . . . . .	137
Superconductive Materials Data Center. . . . .	151
National Cargo Bureau, Inc. . . . .	108
National Center for Health Statistics . . . . .	109
National Forest Products Association. . . . .	110
National Geophysical and Solar-Terrestrial Data Center. . . . .	111
National Highway Traffic Safety Adm.,	
Technical Reference Branch . . . . .	112
National Inst. of Occupational Safety and	
Health, Toxicology Branch . . . . .	113
National Oceanographic and Atmospheric Adm.	
<i>see</i>	
National Oceanographic Data Center . . . . .	114
National Geophysical and Solar-Terrestrial	
Data Center . . . . .	111
National Oceanographic Data Center. . . . .	114
National Research Council <i>see</i> Advisory Center	
on Toxicology. . . . .	1
National Safety Council . . . . .	116
National Science Foundation <i>see</i> Underground Excavation	
& Rock Prop. Inform. Center. . . . .	156
Naval Air Engineering Center. . . . .	117
Naval Research Laboratory . . . . .	118
Naval Weapons Support Center. . . . .	119
New York Univ., Center for Safety . . . . .	120
NOAA	
<i>see</i>	
National Geophysical and Solar-Terrestrial Data Center . . .	111
National Oceanographic Data Center . . . . .	114
Nondestructive Testing Data Support Center. . . . .	122
Northern Arizona Univ., Department of Physics . . . . .	124
Northwestern Univ.	
Technological Inst., Design and Development Center . . . . .	125
Transportation Center Library. . . . .	126
Nuclear Regulatory Commission, Office of Inspection	
and Enforcement. . . . .	127
Oak Ridge Associated Univ., Radiation Emergency	
Assistance Center. . . . .	128
Oak Ridge National Laboratory, Health Physics Division. . . . .	129
Office of Hazardous Materials . . . . .	130
Ohio State Univ.	
Aviation Medicine Research Laboratory. . . . .	131
Physiological Fluid Mechanics Research Group . . . . .	132
Oil and Hazardous Material Technical Assistance	
Data System. . . . .	133

Old Dominion Univ., Performance Assessment Laboratory. . . . .	134
Pennsylvania State Univ.	
Applied Research Laboratory . . . . .	135
Laboratory for Human Performance Research . . . . .	136
Phase Diagrams for Ceramists . . . . .	137
Picatinny Arsenal, Scientific and Technical	
Information Division. . . . .	138
Picklesimer, M. L., Consultant . . . . .	139
Planetary Research Center, Lowell Observ. <i>see</i>	
International Planetary Patrol. . . . .	89
Planning Research Corp. <i>see</i> R. Dixon Speas, Associates . . . . .	142
Plastics Technical Evaluation Center . . . . .	140
Professional Air Traffic Controllers Organization. . . . .	141
Purdue Univ.	
<i>see</i>	
Electronic Properties Information Center. . . . .	60
Underground Excavation and Rock Prop. Inform. Center. . . . .	156
R. Dixon Speas, Associates . . . . .	142
Railroad Research Information Service. . . . .	143
Reynolds Metals Co., Technical Information Services. . . . .	144
Roylance, Herbert M., Consultant . . . . .	145
Smithsonian Institution <i>see</i> Center for Short-Lived Phenomena . . . . .	38
Smoke, Fire and Burn Foundation, Inc.. . . . .	146
Society for the Advancement of Material and	
Process Engineering . . . . .	147
Southwest Research Inst.	
<i>see</i>	
Nondestructive Testing Data Support Center. . . . .	122
U.S. Army Fuels and Lubricants Research Lab . . . . .	155
Speas, R. Dixon, Associates <i>see</i> R. Dixon Speas Associates. . . . .	142
Stanford Research Inst.	
Technical Information Service on Fire-Related Literature. . . . .	148
Toxicology Department . . . . .	149
Stanford Univ., Clinical Psychopharmacology and	
Psychophysiology Laboratory . . . . .	150
Superconductive Materials Data Center. . . . .	151
Systems Safety Society . . . . .	152
Technical Assistance Data System . . . . .	153
U.S. Army Agency for Aviation Safety . . . . .	154
U.S. Army Fuels and Lubricants Research Laboratory . . . . .	155
Underground Excavation and Rock Properties Information Center. . . . .	156
Univ. of Arkansas, Chemical Engineering Department . . . . .	157
Univ. of California	
Department of Civil Engineering . . . . .	158
Fire Research Group . . . . .	159
<i>see also</i>	
Los Alamos Scientific Lab., Cryogenic Eng. Sect.. . . . .	99
Univ. of Dayton Research Inst. <i>see</i> Comprehensive Univ.	
of Dayton On-Line Serv. . . . .	44
Univ. of Michigan, Radiological Health Program . . . . .	160
Univ. of Missouri <i>see</i> Dalton Research Center . . . . .	55

Univ. of Pittsburgh, Dept. of Industrial Environmental Health Sciences . . . . .	161
<i>see also</i>	
Knowledge Availability Systems Information Center . . . . .	93
Univ. of Southern California	
<i>see</i>	
Institute of Safety and Systems Management	
Research Center . . . . .	82
Institute of Safety and Systems Management Safety Center. . . . .	84
Institute of Safety and Systems Management Traffic Safety. . . . .	85
Univ. of Tennessee, Space Institute. . . . .	162
Univ. of Utah, Flammability Research Center. . . . .	163
Univ. of Virginia	
Department of Civil Engineering . . . . .	164
Department of Electrical Engineering. . . . .	165
Department of Engineering Science and Systems . . . . .	166
Department of Material Sciences . . . . .	167
Univ. of Washington, Department of Mechanical Engineering. . . . .	168
Univ. of Wisconsin, Engineering Experiment Station . . . . .	169
Valley Forge Space Center, Plastics and Advanced Composites Lab. . . . .	170
Virginia Polytechnic Inst., Dept. of Engineering Science and Mechanics . . . . .	171
Vitro Laboratories . . . . .	172
Washington College . . . . .	173
Watervliet Arsenal <i>see also</i> Benet Laboratories, Technical Information Serv. Office. . . . .	29
World Data Center A: Rockets and Satellites . . . . .	174
York Research Corp. . . . .	175

INDEXES . . . . .	170
I. Information Sources Listed by Areas of Expertise . . . . .	179
II. Alphabetical List of Experts . . . . .	206
III. Experts Listed by Speciality . . . . .	219

## INTRODUCTION

This Directory is a companion volume to the Directory of Aerospace Safety Specialized Information Sources, NASA CR-121206 (N74-10887) which is available from the National Technical Information Service, Springfield VA 22151.

The purpose of both publications is to make available to the aerospace and transportation safety community handbooks of organizations and experts in specific, well-defined areas of safety technology. It is designed for the safety specialist as an aid for locating both information sources and individual points of contact (experts) in engineering related fields.

The 159 organizations covered in this Supplement and the 171 organizations in the initial Directory, and their staff members, hopefully, should provide technical information in the form of documentation, data and consulting expertise. These will be sources that have assembled and collated their information, so that it will be useful in the solution of engineering problems. One of the goals of the project is to provide a consolidated listing and description of information sources located in the United States that have and are willing to share data of value to the aerospace and transportation safety community.

An Aerospace Safety Specialized Information Source was defined as an organization that satisfies the following requirements:

- a. Maintains a specialized collection or file of materials to aerospace safety.
- b. Regularly provides qualified users with information on a particular subject, or with referrals to outside experts.
- c. Has a responsibility to function as an Information Source; however, this responsibility does not have to be formalized as part of their charter.

The Directory and this Supplement include sources of data in aerospace design, tests, and operations, as well as information in hazard and failure cause identification, accident analysis, materials characteristics, and other related subject areas. These other safety-related information sources cover areas of vital interest to certain specialized aspects of aerospace safety. For example, the recent increase in the problems encountered transporting toxic and reactive chemicals, radioisotopes and other dangerous materials is the cause for the inclusion of a number of information sources on toxicology and hazardous cargo handling in the air, on water and by rail. Also, current work on cryogenic safety involving bulk handling of LNG tanker cargos accounts for sources that are concerned with marine safety. A parallel effort to include relevant sources of information on aircraft fire hazards and interior flammability accounts for the inclusion of sources on fire and flammability. Although the interests of aviation, aerospace, and ground support safety are of primary concern, the comprehensive coverage of the Directory and the Supplement will provide information of considerable value to safety professionals in many other fields.

Of the approximately 1500 potential sources assembled for review and analysis, 400 met the above criteria and were contacted as candidates for the Supplement. A feature of the Directory Supplement over our initial Directory is the increased number of sources that are safety consultants, university research laboratories, not-for-profit research institutes and corporate organizations. We acknowledge the cooperation of the System Safety Society, whose officers advised us in identifying a number of safety professionals in these organizations.

To present the contents of this Directory in an easy reference form, two indexes were developed using keyword terms to identify and highlight the expertise of the organizations and their staff members. To increase the usefulness of the Directory, the list of index terms used in this Supplement was enlarged and revised to match the latest revisions of the NASA, DDC and ASSE thesauri and brought into closer agreement with the vocabulary used by other NASA-ASRDI safety-related computerized information files. This will aid users of the Directory who intend to search for further information through ASRDI or the NASA and DDC information systems. These keywords were selected to describe these Information Sources and their Experts with meaningful terms that have a direct application to safety related problem areas.

It is recognized that the Directory and its Supplement are an incomplete listing of safety aerospace information sources. We realize that there are other well qualified organizations that are not included. A number of them requested their omission for various management reasons. It is apparent that serious information gaps still exist and your comments for candidates are encouraged and welcomed, both from the standpoint of organizations who have special information files, as well as from individuals who are recognized experts in specific areas of aerospace and transportation safety technology.

This handbook is one of a series of publications which are directories of information sources and points of contact for consultation on safety problems. They have been prepared under the management of the NASA Aerospace Safety Research and Data Institute (ASRDI). ASRDI has concentrated its safety projects and programs in selected areas and its published Directories of safety expertise reflect these fields:

- (a) NASA CR-2624, "Register of Hydrogen Technology Experts", 1975
- (b) NASA CR-134807, "Register of Specialized Sources for Information on Selected Fuels and Oxidizers", 1975
- (c) NASA CR-121149, "Directory of Workers in the Fire Field", 1973
- (d) NASA CR-134754, "Register of Experts for Information on Mechanics of Structural Failure", 1975
- (e) NASA CR-121201, "Register of Specialized Sources for Information on the Mechanics of Structural Failure", 1973
- (f) NASA CR-121206, "Directory of Aerospace Safety Specialized Information Sources", 1973
- (g) NASA CR-134929, "Directory of Aerospace Safety Specialized Information Sources", (Supplement), Volume 2, 1976

George Mandel  
Program Manager, NASA-ASRDI

## ADVISORY CENTER ON TOXICOLOGY (ACT)

ADDRESS: National Research Council  
2101 Constitution Avenue  
Washington, DC  
20418

TELEPHONE: (202) 389-6751

DIRECTOR: Wards, R. C.

PARENT-SPONSOR-HOST AFFILIATION: National Research Council

YEAR INFORMATION SOURCE BEGAN: 1957

MISSION: To serve as a spokesman in international affairs for the United States professions of toxicology and industrial hygiene; to advise and assist federal agencies, including the Armed Forces on problems involving toxicology.

SUBJECT SCOPE: Toxicology; Hygiene and sanitation.

MAJOR SUBJECT TERMS: Toxicity; Industrial hygiene; Hygiene.

RESEARCH AND DEVELOPMENT ACTIVITIES: Recommends initiation of specific toxicological testing and research.

## STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Wards, R. C.	Industrial Hygiene; Toxicity	(212) 389-6751

STAFF: Full-time - professional 9, nonprofessional 8, total 17; part-time - professional 0, nonprofessional 0, total 0.

INTERNAL PUBLICATIONS: Handbooks/manuals; periodicals/journals; newsletters/trade literature; conference papers; reference lists/bibliographies.

HOLDINGS: Books; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications.

REFERENCE AND QUERY SERVICES: Questions answered individually; state-of-the-art reviews; advisory and consulting services; referrals; translations.

OTHER SERVICES: Courses/workshops; conferences/symposiums.

USER QUALIFICATIONS: Staff or members of affiliated organizations; government employees.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: All services free to qualified users.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## AERONUTRONIC FORD CORP. SAFETY ENGINEERING SECTION

**ADDRESS:** Aeronutronic Ford Corporation  
 Attention: Safety Engineering Section  
 Ford Road  
 Newport Beach, CA  
 92663

**TELEPHONE:** (714) 640-1500 ext 1421

**DIRECTOR:** Gordon, R. B.

**PARENT-SPONSOR-HOST AFFILIATION:** Ford Motor Company

**YEAR INFORMATION SOURCE BEGAN:** 1960

**MISSION:** To provide technical and administrative support to Aeronutronic Division management in assuring (1) a safe and healthy environment for Company personnel (2) appropriate protection of facilities, equipment and resources against accidental loss; (3) products and services which are safe for their intended uses; and (4) compliance with applicable customer, contractual, Federal, State and local codes, regulations and requirements pertaining to health, safety, dangerous materials and environmental protection.

**SUBJECT SCOPE:** Maser and lasers; Hygiene and sanitation; Missiles; Safety analysis.

**MAJOR SUBJECT TERMS:** Missiles; Safety analysis; Lasers; Toxicity; Hazardous materials; Industrial hygiene; Product safety.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Provides technical coordination of safety related research on hazardous characteristics of new products or materials used or developed by the Division. This includes new explosive items, propellant grains used for missile controls, hazardous substances used in advance technology research, laser systems and radioactive materials.

**SPECIAL SCOPE FEATURES:** Technical safety consulting or support effort may be arranged through negotiation and contract.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Gordon, R. B.	Product Safety; Hazardous Materials	(714) 640-1500 ext 1940
Sweningsen, W. B.	Lasers; Safety Analysis	(714) 640-1500 ext 1421
Beckett, T. A.	Industrial Hygiene; Toxicity	(714) 640-1500 ext 1422

**STAFF:** Full-time - professional 5, nonprofessional 1, total 6; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; reference lists/bibliographies.

**REFERENCE AND QUERY SERVICES:** Questions answered individually if not priority information.

**USER QUALIFICATIONS:** General technology community.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## AEROSPACE CORP., ENERGY &amp; TRANSPORTATION DIVISION

**ADDRESS:** Aerospace Corporation  
P.O. Box 92957  
Los Angeles, CA  
90009

**TELEPHONE:** (213) 648-5000

**DIRECTOR:** Greenberg, A. B.

**YEAR INFORMATION SOURCE BEGAN:** 1960

**MISSION:** As part of civil operations, the Energy and Transportation Division applies the corporation's technical expertise to the resolution of civil problems, especially in the areas of transportation, conservation of natural resources and the development of new energy sources.

**SUBJECT SCOPE:** Aircraft problems; Air facilities.

**MAJOR SUBJECT TERMS:** Environments; Air traffic control; Transportation; Structural engineering; Energy; Propulsion system performance.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Major research areas include the following: comprehensive plans for the Airport System of the State of Washington, development of an air traffic control computer simulation program, studies into the energy consumption aspects of transportation policy and diverse activities in the field of Intercity Transportation Planning.

**SPECIAL SCOPE FEATURES:** The Aerospace Corporation has collected an extensive nationwide data base for use in transportation studies. Area characteristics, including zonal population, income distribution, local access, and travel demand, were gathered for a large number of US cities. These are used in developing travel demand and modal split projections for the appropriate regions.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Sokolsky, S.	Transportation	(213) 648-5748
Paymond, L.	Structural Materials	(213) 648-5748

**STAFF:** Full-time - professional 40, nonprofessional 20, total 60; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; newsletters/trade literature; conference papers.

**HOLDINGS:** Books; reports and reprints; periodicals; standards and specifications; total number of titles 236,000.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** On-site use of collection; interlibrary loans; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** Immediate staff or members; government contractors.

**USER RESTRICTIONS:** Federal security clearance The Corporation is enjoined from nongovernment contract work.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## AEROSPACE STRUCTURES INFORMATION AND ANALYSIS CENTER (ASIAC)

**ADDRESS:** Aerospace Structures Information and Analysis Center  
 Air Force Flight Dynamics Laboratory  
 Wright Patterson AFB, OH  
 45433

**TELEPHONE:** (513) 255-6688

**DIRECTOR:** Negaard, G. R.

**PARENT-SPONSOR-HOST AFFILIATION:** Air Force Flight Dynamics Laboratory

**YEAR INFORMATION SOURCE BEGAN:** 1973

**MISSION:** To provide quick response in depth literature searches, data retrieval and state of the art reviews in Aerospace Structures, and to provide state of the art solutions to structural problems.

**SUBJECT SCOPE:** Mechanics of structural failure; Aircraft problems.

**MAJOR SUBJECT TERMS:** Failure; Fatigue (materials); Structural failure; Stress analysis; Structural engineering.

**SPECIAL SCOPE FEATURES:** ASIAC maintains a library of aerospace structures related computer programs that are not available from other program dissemination organizations. These programs are available upon request. Limited search and information distribution available to non-government users.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Negaard, G. R.	Aircraft Problems; Structural Engineering	(513) 255-6688

**STAFF:** Full-time - professional 3, nonprofessional 1, total 4; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Technical reports and memoranda; newsletters/trade literature; conference papers.

**HOLDINGS:** Reports and reprints; periodicals; handbooks; total number of titles 7000 hard copy, 13,000 microfiche; range of years of total 1954-present.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
ASIAC	Aerospace structures	1954-1975	18,000
DDC			
NTIS			
Engineering Index			
COMPENDEX			

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches of DDC, NTIS, NASA, FTD; advisory and consulting services; bibliographic abstracts.

**OTHER SERVICES:** On-site use of collection; interlibrary loans; reproduction/publication services.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfiche copy.

**USER QUALIFICATIONS:** Government contractors & agencies.

**USER RESTRICTIONS:** None to qualified users.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## AIRPORT OPERATORS COUNCIL INTERNATIONAL (AOCI)

**ADDRESS:** 1700 K Street, NW  
Washington, DC  
20006

**TELEPHONE:** (202) 296-3270

**DIRECTOR:** Ridgeway, G. H., Jr.

**YEAR INFORMATION SOURCE BEGAN:** 1948

**MISSION:** The main objective is to serve the public interest by promoting sound policies for financing, constructing, managing, operating, and developing airports.

**SUBJECT SCOPE:** Air facilities; Dangerous materials; Noise; Aircraft problems; Industrial safety manuals, codes, specifications, standards, etc..

**MAJOR SUBJECT TERMS:** Air pollution; Airports; Noise (sound); Transportation; Shipping regulations; Consumer protection; Industrial safety; Hazardous materials; Passengers.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Research and development is coordinated in the following fields: aircraft noise abatement; airport/environment compatibility; coordinated aviation system planning; convenient airport access; improved processing of passengers and cargo; better airport construction and design; effective economic planning and fiscal management; adequate and convenient air service; and air transportation security.

**SPECIAL SCOPE FEATURES:** The AOCI represents the governmental bodies responsible for the development and operation of the public air carrier airports in the United States and on five continents around the world. AOCI member airports enplane more than 90 percent of the U.S. domestic air traffic and virtually all of the international traffic.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Reilly, J. D.	Airports	(202) 296-3270
Corbett, J. J.	Passengers; Cargo	(202) 296-3270
Faley, J.	Passengers; Cargo; Airports; Security Industrial Safety	(202) 296-3270
Duggan, L.	Airports; Airport Planning	(202) 296-3270
Coor, M. L.	Environmental Conditions; Legal Liability	(202) 296-3270
Parrella, B. C.	Airports; Traffic; Statistics; Economic Factors	(202) 296-3270
Oliprant, H. G.	Airports; Security	(202) 296-3270

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; statistical compilations; newsletters/trade literature, press releases; standards and specifications.

**HOLDINGS:** Books; hand books; reports and reprints; standards and specifications and federal and state regulations; statistical compilations; films and slides; airport plans and FAA advisory circulars.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; advisory and consulting services; referrals.

**OTHER SERVICES:** Conferences/symposiums; ad hoc committees.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## ALLEGANY BALLISTICS LABORATORY (ABL)

**ADDRESS:** Allegany Ballistics Laboratory  
Hercules Incorporated  
P.O. Box 210  
Cumberland, MD  
21502

**TELEPHONE:** (304) 726-4500

**DIRECTOR:** Richardson, R. H.

**PARENT-SPONSOR-HOST AFFILIATION:** Hercules Inc.

**YEAR INFORMATION SOURCE BEGAN:** 1958

**MISSION:** To provide the Government and industry with a systems engineering method for hazards evaluation, risk analysis, and accident investigation and reliability analysis services using the Hercules-developed Hazards and Risk Control (HERC) techniques; conduct product testing for design verification and product warranty.

**SUBJECT SCOPE:** Reliability; Fire, explosion and detonations; Man-machine hazards; Structural materials limitations (metallic and nonmetallic); Propellants, fuel, lubricants, hydraulic fluids safety; Aerospace explosives, pyrotechnics and initiators; Dangerous materials; Safety analysis; Mathematics and statistics; Safety engineering; Laboratories, test facilities and test equipment; Research; Combustion and ignition; Rocket engines; Rocket propellants; General propulsion concepts.

**MAJOR SUBJECT TERMS:** Propellants; Fuels; Lubricants; Hydraulics; Fires; Explosions; Explosives; Pyrotechnics; Mathematics; Safety engineering; Reliability; Test equipment; Research and development.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Performs safety related research in the areas of materials response (theory and test methods development primarily in sensitivity, flammability and explosion propagation); hazards and risk methodology; blast effects and damage criteria; fault tree analysis techniques; risk versus cost optimization.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Jones, M. L.	Chemistry	(304) 726-4500 ext 8159
Katz, M. J.	Fault Tree Analyses	(304) 726-4500 ext 623
Williams, G. M.	Materials; Explosives	(304) 726-4500 ext 8094
Hunt, R. G.	Materials; Tests	(304) 726-4500 ext 429
DeGiovanni, J.	Explosives	(304) 726-4500 ext 230
Gimler, J. R.	Propellants; Explosives	(304) 726-4500 ext 713
Albaugh, L. F.	Chemical Engineering	(304) 726-4500 ext 545
Pratt, T. H.	Explosives	(304) 726-4500 ext 275
Mull, L. H.	Electrical/Electronic Engineering	(304) 726-4500 ext 570
Sawyer, S. O.	Mechanical Engineering	(304) 726-4500 ext 8093
McBride, D.	Nuclear Engineering	(304) 726-4500 ext 732
Sutton, J. M.	Statistics; Explosives	(304) 726-4500 ext 296
Treadwell, L. S.	Explosives	(304) 726-4500 ext 598
Richardson, R. H.	Explosives; Safety Engineering	(304) 726-4500 ext 632

**STAFF:** Full-time - professional 17, nonprofessional 11, total 28; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; newsletters/trade literature.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; standards and specifications; graphics/tables; films and slides; total number of titles 11,000; range of years of total 1948-present.

## ALLEGANY BALLISTICS LABORATORY (ABL)

## DATA BANK RESOURCES:

Name or Acronym	Description of Contents	Range of Years	No. of Records
FARADA	Electrical Components	1960-present	5000
ROME	Non-Electrical Components	1960-1970	2000
HERCULES	Compatibility of Materials	1960-present	11,000
HERCULER Materials Handbook	Physical Properties-Propellants	1958-present	2000
HERCULES Surveillance file	Formulation and Material Response Propellant Aging Properties	1958-present 1963-present	3000 1000
Hercules	Toxicity Data Bank		

REFERENCE AND QUERY SERVICES: Questions answered individually; state-of-the-art reviews; analytical studies; advisory and consulting services; scientific or statistical data retrieval/compilation.

OTHER SERVICES: Conferences/symposiums.

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Not available.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: Charge to all users for all services.

DECEMBER 1975

THIS PAGE IS  
FOR QUALITY

## ALUMINUM ASSOCIATION, INC. (AA)

**ADDRESS:** 750 Third Avenue  
New York, NY  
10017

**TELEPHONE:** (212) 972-1800

**DIRECTOR:** Goldsmith, S. L., Jr.

**YEAR INFORMATION SOURCE BEGAN:** 1933

**MISSION:** To serve the public as a source of non-commercial industry-wide information on aluminum and the aluminum industry.

**SUBJECT SCOPE:** Metals; Industrial safety manuals, codes, specifications, standards, etc..

**MAJOR SUBJECT TERMS:** Aluminum; Standards; Metallurgy; Information retrieval.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Functions include developing technical standards and technical data, collecting and publishing industry statistics, speaking for the industry before government and quasi-governmental bodies where an industry wide position is required, encouraging increased use of aluminum in specific markets through promotional and product-development programs, and conduction school programs and industry seminars.

**SPECIAL SCOPE FEATURES:** The Association membership embraces all US producers of primary ingot, most producers of sheet and plate and leading extruders, foundries, secondary smelters, forging firms and producers of aluminum electrical conductor. Approximately 100 percent of primary aluminum shipments and eighty two percent of semifabricated aluminum shipments are accounted for by Association member companies.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Alison, G. A.	Marketing	(212) 972-1800
Barr, J. W.	Standards	(212) 972-1800
Breschen, D. H.	Information Retrieval	(212) 972-1800
Epstein, S. G.	Metallurgy	(212) 972-1800
Pritsky, W. W.	Metallurgy	(212) 972-1800

**STAFF:** Full-time - professional 22, nonprofessional 23, total 45; part-time - professional 3, nonprofessional 0, total 3.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; abstracts; indexes; technical reports; statistical compilations; periodicals/journals; newsletters/trade literature; conference papers; standards and specifications; magnetic tape bibliographic data.

**HOLDINGS:** Abstracts/indexes; reports and reprints; standards and specifications; statistical compilations; films and slides; total number of titles 40,000 (World Aluminum Abstracts); range of years of total 1968-1975.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
World Aluminum Abstracts	Technical Literature in Aluminum Technology	1968-1975	40,000

**REFERENCE AND QUERY SERVICES:** Questions answered individually.

**OTHER SERVICES:** Reproduction/publication services.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy (World Aluminum Abstracts).

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## AMERICAN ASTRONAUTICAL SOCIETY (AAS)

ADDRESS: 6060 Duke Street  
Alexandria, VA  
22304

TELEPHONE: (703) 751-7323

DIRECTOR: Bolger, P. H.

YEAR INFORMATION SOURCE BEGAN: 1953

MISSION: To further the progress of space exploration and exploitation by encouraging the exchange of ideas and information among scientists and engineers.

SUBJECT SCOPE: Aeronautics; Astronomy and astrophysics; Space technology; Space vehicle problems.

MAJOR SUBJECT TERMS: Aeronautics; Spacecraft; Astronomy.

SPECIAL SCOPE FEATURES: 1. Space mechanics; 2. Earth resources; 3. Systems reliability and safety; 4. Impact predictions; 5. Space benefit to society; 6. Human factors in space.

## STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Bolger, P. H.	Aeronautics	(703) 751-7323

STAFF: Full-time - professional 1, nonprofessional 2, total 3; part-time - professional 0, nonprofessional 0, total 0.

INTERNAL PUBLICATIONS: Periodicals/journals; newsletters/trade literature; conference papers.

HOLDINGS: Books; abstracts/indexes; reports and reprints; periodicals; films and slides; range of years of total 1960-1975.

REFERENCE AND QUERY SERVICES: Selective dissemination of information; analytical studies.

OTHER SERVICES: Conferences/symposiums.

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Hard copy; microfiche copy.

USER QUALIFICATIONS: General technology community; immediate staff or members; staff or members of affiliated organizations.

PRICING AND SERVICES CHARGES: Charge to all users for all services.

DECEMBER 1975

## AMERICAN BUREAU OF SHIPPING (ABS)

**ADDRESS:** 45 Broad Street  
New York, NY  
10004

**TELEPHONE:** (212) 785-9800

**DIRECTOR:** Young, R. T.

**YEAR INFORMATION SOURCE BEGAN:** 1862

**MISSION:** The function of the ABS is the classification and survey of ships. The reason for this work is to save property and life at sea on a worldwide basis.

**SUBJECT SCOPE:** Mechanics of structural failure; Metals; Structural engineering; Industrial safety manuals, codes, specifications, standards, etc.; Containers and packaging; Navigation and guidance; Materials; Construction equipment, materials and supplies; Marine engineering.

**MAJOR SUBJECT TERMS:** Standards; Steels; Iron; Metallurgy; Structural engineering; Structural materials; Mechanical engineering; Propulsion system performance; Maintenance; Industrial safety; Materials tests; Safety equipment; Information retrieval; Shipping.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Research and development projects are directed toward the following: improve and extend the "Rules"; expedite and broaden design analysis; gather and catalogue hull, machinery and metallurgical information and experiences; and investigate actual and potential structural and mechanical problems.

**SPECIAL SCOPE FEATURES:** The principal work of the ABS is: 1. To establish Rules for the construction of hulls and machinery; 2. To analyze plans of vessels projected to be built or conversions of existing vessels; 3. To witness the testing of materials of construction for hull and machinery at places of manufacture; 4. To verify the building of the new hull and its main machinery, boilers and vital auxiliaries, and the conversion of existing vessels; 5. To survey the completed vessel through her economic life; 6. To carry out Load Line Surveys, Safety Equipment Surveys and to issue Tonnage Certificates and Construction Certificates; 7. To publish in the Record of the American Bureau of Shipping the essential details of hull and machinery of Bureau classed vessels and others; 8. To publish the Rules; 9. To publish the Guides; 10. To issue certificates of character for Bureau classed vessels; 11. To issue Cargo Gear Registers at the request of owners; 12. To represent the Bureau on many technical committees of the various standard making bodies; 13. To issue certificates for cargo containers; 14. To maintain a materials research laboratory; 15. To maintain its membership in the International Association of Classification Societies; 16. To record the performance of all classed vessels from the time of keel laying and during their classed life.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Wenzel, E. S.	Ship Hulls	(212) 785-9800
Ritola, A. P.	Ships	(212) 785-9800
Doherty, E. J.	Transportation; Shipping	(212) 785-9800
Yohe, R. E.	Shipping; Engineering	(212) 785-9800
Swenson, E. D.	Metallurgy	(212) 785-9800

**INTERNAL PUBLICATIONS:** Books; handbooks/manuals; technical reports; statistical compilations; newsletters/trade literature; standards and specifications; rules and guides.

**HOLDINGS:** Books and handbooks; standards and specifications; statistical compilations.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
American Bureau of Shipping Information Retrieval System (ABSIRS)	Owners builders and pertinent facts and characteristics about merchant vessels.		

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

## AMERICAN FOUNDRYMEN'S SOCIETY (AFS)

**ADDRESS:** Golf and Wolf Roads  
Des Plaines, IL  
60016

**TELEPHONE:** (312) 824-0181

**DIRECTOR:** Sinnett, A. B.

**YEAR INFORMATION SOURCE BEGAN:** 1896

**MISSION:** To promote the advancement of the sciences related to the manufacture and utilization of metal casting, and to the ancillary problems of the total foundry environment, through research, education, and dissemination of technology.

**SUBJECT SCOPE:** Metals.

**MAJOR SUBJECT TERMS:** Mechanical properties; Metallurgy; High strength alloys; Environments; Foundries.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Conducts research and development related to foundry material and process technology and ecological problems pertaining thereto.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Sinnett, A. B.	Foundries	(313) 824-0181

**STAFF:** Full-time - professional 23, nonprofessional 18, total 41; part-time - professional 0, nonprofessional 2, total 2.

**INTERNAL PUBLICATIONS:** Book catalogs; books; handbooks/manuals; abstracts; indexes; technical reports; statistical compilations; periodicals/journals; newsletters/trade literature; conference papers; reference lists/bibliographies; standards and specifications; graphics/tabular materials.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; graphics/tables; statistical compilations; films and slides.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; state-of-the-art reviews; analytical studies; advisory and consulting services; referrals; bibliographic abstracts; scientific or statistical data retrieval/compilation; translations; custom abstracting and indexing services.

**OTHER SERVICES:** On-site use of collection; reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; staff or members of affiliated organizations; ad hoc permission; government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users; charge for user outside organization.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

**AMERICAN INST. OF AERONAUTICS AND ASTRONAUTICS, INC., TECH. INFORM. SERVICE (AIAA-TIS)**

**ADDRESS:** Technical Information Service  
750 Third Avenue  
New York, NY  
10017

**TELEPHONE:** (212) 867-8300

**DIRECTOR:** Meskel, T. J.

**PARENT-SPONSOR-HOST AFFILIATION:** NASA

**YEAR INFORMATION SOURCE BEGAN:** 1961

**MISSION:** To collect, process and announce scientific and technical information on world-wide aerospace research and to disseminate this knowledge to the international scientific community. Also publishes the semi-monthly journal, International Aerospace Abstracts (IAA).

**SUBJECT SCOPE:** All categories and subcategories.

**MAJOR SUBJECT TERMS:** Aeronautics; Chemistry; Materials; Earth sciences; Life sciences; Mathematics; Physics; Astronomy; Oceanography; Aerospace medicine; Information retrieval; Nuclear physics; Acoustics; Propulsion; Lasers; Aircraft safety; Medicine; Propellants; Structural engineering.

**SPECIAL SCOPE FEATURES:** Aerodynamics, air transportation and safety; aircraft topics include design, testing, performance, instrumentation, propulsion, power, stability and control; research and support facilities (air); astrodynamics, ground support systems and facilities (space) launch vehicles and space vehicles; space transportation, spacecraft communications, command, tracking, design, testing, performance, instrumentation, propulsion and power; composite materials; metallic materials; nonmetallic materials; propellants and fuels; fluid mechanics and heat transfer; instrumentation and photography. Literature dealing with aerospace safety assurance is collected from domestic and foreign literature sources.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Meskel, T. J.	Information Retrieval; Aerospace Engineering	(212) 867-8300

**STAFF:** Full-time - professional 82, nonprofessional 0, total 82; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Abstracts; indexes; periodicals/journals; newsletters/trade literature; reference lists/bibliographies.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; total number of titles 1,600.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; referrals.

**OTHER SERVICES:** On-site use of collection.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfiche copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

AMERICAN LAFRANCE INC.

ADDRESS: 100 East LaFrance St.  
Elmira, NY  
14902

TELEPHONE: (607) 734-8181

DIRECTOR: Kainer, W. J.

PARENT-SPONSOR-HOST AFFILIATION: A-T-O Inc.

YEAR INFORMATION SOURCE BEGAN: 1832

MISSION: To design, manufacture and sell fire fighting equipment.

SUBJECT SCOPE: Fire, explosion and detonations; Life support.

MAJOR SUBJECT TERMS: Breathing apparatus; Fire fighting; Fire fighting equipment.

SPECIAL SCOPE FEATURES: Special equipment for the fighting of aircraft and airport fires.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (X)
Kainer, W. J.	Fire Fighting Equipment; Information Retrieval	(607) 734-8181

INTERNAL PUBLICATIONS: Newsletters/trade literature; reference lists/bibliographies; standards and specifications.

REFERENCE AND QUERY SERVICES: Questions answered individually; referrals.

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Hard copy.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: Charge to all users for all services.

DECEMBER 1975

ARMED FORCES INSTITUTE OF PATHOLOGY

ADDRESS:

Washington, DC  
20305

TELEPHONE: (202) 576-2891

DIRECTOR: Berdjis, Col. C. C. (Principle Investigator and Director)

MISSION: To study radiobiology and the pathological effects of radiation from external and internal emitters as various types of ionizing radiation become more widely used and make more intimate contact with the daily activities of society.

SUBJECT SCOPE: Radiobiology; Clinical medicine; Dangerous industrial radiation; Nuclear safety; Radioactivity; Isotopes; Physiology.

MAJOR SUBJECT TERMS: Ionizing radiation; Radiation; Irradiation; Radioactive sources; Physiology; Physiological hazards; Reactor safety; Electromagnetic radiation; Pathology; Medicine,

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Berdjis, C. C.	Pathology; Medicine; Radiation; Nuclear Radiation	(202) 576-2891

DECEMBER 1975

ARMY ENVIRONMENTAL HYGIENE AGENCY, LASER-MICROWAVE DIVISION (USAZHA)

ADDRESS:

Aberdeen Proving Grounds, MD  
21010

TELEPHONE: (301) 671-3932

DIRECTOR: Wengemann, R. T., LTC

YEAR INFORMATION SOURCE BEGAN: 1974

MISSION: To evaluate for development and design agencies the potential health hazards of equipment utilizing lasers and other optical source systems, and to provide guidance on measures which may be taken to avoid or prevent excessive exposure of personnel to optical radiation.

SUBJECT SCOPE: MaserS and lasers; Optics; Protective equipment; Industrial safety manuals, codes, specifications, standards, etc.

MAJOR SUBJECT TERMS: Safety regulations; Lasers; Microwaves; Physiological hazards; Standards; Hygiene.

RESEARCH AND DEVELOPMENT ACTIVITIES: Research is performed in the general field of Optical Radiation Hazards.

SPECIAL SCOPE FEATURES: Conducts periodic comprehensive surveys of laser installations at least every three years. Surveys include evaluation of characteristics of laser equipment and activities at the site which may result in exposure of personnel, determination of interlocks, eye protection, warning and/or limiting devices and review of standing operating procedures and other controls related to personnel protection.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Sliney, D. H.	Lasers	(301) 671-3932

DECEMBER 1975

## ARMY MATERIEL COMMAND SAFETY OFFICE (AMC)

**ADDRESS:** Commander  
 US Army Materiel Command  
 ATTN: AMCSF  
 5001 Eisenhower Avenue  
 Alexandria, VA  
 22333

**TELEPHONE:** (202) 274-8848

**DIRECTOR:** Queen, W. G.

**PARENT-SPONSOR-HOST AFFILIATION:** Dept. of the Army

**YEAR INFORMATION SOURCE BEGAN:** 1962

**MISSION:** To direct and staff supervise the AMC Safety Program which includes provision of maximum safety consistent with operational requirements in the design of Army materiel; prevention of damage to Government property and interruption to essential operations; and elimination from the environment of those effects of AMC operations which might otherwise represent a hazard to the civilian populace. Exercises operational control over the AMC Field Safety Activity.

**SUBJECT SCOPE:** Nuclear safety; Ammunition, explosives and pyrotechnics; Weapon effects; Cryogenic safety; Dangerous materials; Industrial safety manuals, codes, specifications, standards.

**MAJOR SUBJECT TERMS:** Safety engineering; Physiological hazards; Compressed gas; Liquified gases; Chemical hazards; Hazardous materials; Aircraft safety; Pyrotechnics; Reactor safety; Safety analysis; Radiation effects.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Active R&D primarily in explosive safety field.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Hawes, J. M.	Chemical Hazards; Explosives	(202) 274-8855
Mothersbaugh, L. L.	Safety Analysis	(202) 274-8849
Queen, W. G.	Explosives	(202) 274-8849
Schelhorn, C. L., LTC	Aircraft Safety	(202) 274-8851
Taras, D. N.	Industrial Safety	(202) 274-8868
Wells, H. E.	Nuclear Power Plants	(202) 274-8855
Lloyd, J. D.	Information Retrieval	(202) 274-8870

**STAFF:** Full-time - professional 14, nonprofessional 4, total 18; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; abstracts; technical reports.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; advisory and consulting services; referrals.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy if not proprietary.

**USER QUALIFICATIONS:** Government employees; government contractors, first preferance to Army items.

**USER RESTRICTIONS:** Federal security clearance; none on unclassified.

**PRICING AND SERVICES CHARGES:** All services free to qualified users.

DECEMBER 1975

## ARTHUR D. LITTLE, SAFETY AND FIRE TECHNOLOGY UNIT (ADL)

**ADDRESS:** Acorn Park  
Cambridge, MA  
02140

**TELEPHONE:** (617) 864-5770

**DIRECTOR:** Allan, D. S.

**YEAR INFORMATION SOURCE BEGAN:** 1965

**MISSION:** As part of ADL, the Safety and Fire Technology Unit undertakes applied research and engineering analyses in the fields of safety and fire technology.

**SUBJECT SCOPE:** Fire, explosion and detonations; Cryogenic safety; Propellants, fuels, lubricants, hydraulic fluids safety; Safety analysis; Safety engineering; Nuclear safety; Computers; Power sources; Dangerous materials; Laboratories, test facilities and test equipment; Combustion and ignition.

**MAJOR SUBJECT TERMS:** Materials tests; Test equipment; Fire fighting; Accident investigation; Cryogenic fluid safety; Liquified gases; Aircraft safety; Shipping regulations; Environments; Air pollution; Missiles; Safety analysis; Reactor safety; Hazardous materials; Fire prevention; Explosions; Fires; Fire hazards; Propellants; Fuels.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Research and development in the areas of state-of-the-art safety information relative to the storage and transport of hazardous materials including LNG, liquified hydrogen, and anhydrous ammonia; design and development of a chemical hazard response information system (CHRIS); analysis of safety of gas distribution systems; application of risk management to hazardous materials; development of draft standards for occupational health and safety; fire investigations and fire prevention.

**SPECIAL SCOPE FEATURES:** Work in the safety of hazardous materials includes (1) evaluation of the characteristics of fires resulting from different potential accident situations and prediction of the thermal hazards that would result, (2) evaluation of the methods on preventing, suppressing, and extinguishing fires, (3) recommendation of fire protection systems and methods and (4) risk analyses including failure mode and consequence assessment. Work on development of chemical hazards response from information system involves gathering of physical, chemical, and health data on 900 chemicals; development of analytical models for hazard assessment of all chemicals; and the delineation of methods of responding to spills.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Allan, D. S.	Safety Analysis; Hazardous Materials	(607) 864-5770 ext 831
Attalah, S.	Fire Protection	(607) 864-5770 ext 828
Bastress, E. K.	Combustion	(607) 864-5770 ext 883
Drake, E. M.	Cryogenic Fluid Safety	(607) 864-5770 ext 479
Kalelkar, A. S.	Safety Analysis	(607) 864-5770 ext 872
Partridge, L. J.	Industrial Hygiene	(607) 864-5770 ext 888
Wilson, R. P.	Combustion	(607) 864-5770 ext 806
Howarth, J. T.	Fire Hazards	(607) 864-5770 ext 2169
Milgrom, J.	Fire Hazards	(607) 864-5770 ext. 2733
Sidman, K. R.	Combustion	(607) 864-5770 ext 2387

**STAFF:** Full-time - professional 15, nonprofessional 5, total 20; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Technical reports; conference papers; reference lists/bibliographies.

ARTHUR D. LITTLE, SAFETY AND FIRE TECHNOLOGY UNIT (ADL)

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides; total number of titles 20,000.

**REFERENCE AND QUERY SERVICES:** Selective dissemination of information; state-of-the-art reviews; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## ATLAS TESTING LABORATORIES, INC.

ADDRESS: 6929 E. Slauson Avenue  
Los Angeles, CA  
90040

TELEPHONE: (213) 685-4242 (213) 722-8810

DIRECTOR: Evans, T. H.

YEAR INFORMATION SOURCE BEGAN: 1950

MISSION: To support the aerospace and other industries together with their contractors regarding technical information, consultation and investigative experts in the fields of ferrous and non-ferrous metallurgy, according to the requirements, specifications and criteria of the user.

SUBJECT SCOPE: Mechanics of structural failure; Structural materials limitations (metallic and non-metallic); Cryogenic safety; Corrosion; Chemistry.

MAJOR SUBJECT TERMS: Chemistry; Chemical engineering; Mechanical engineering; Metallurgy; Fatigue (materials); Fabrication; Corrosion; Stress analysis; Materials tests; Cryogenic fluid safety.

RESEARCH AND DEVELOPMENT ACTIVITIES: Supports research in basic and applied metallurgical sciences.

## STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Dickason, J.	Tests	(213) 685-4242
Young, L.	Chemistry	(213) 685-4242
Poppe, E.	Tests	(213) 685-4242
Caugherty, C.	Metallurgy	(213) 685-4242
Wziatek, T.	Fracture Mechanics	(213) 685-4242
Tiner, N.	Corrosion; Fracture Mechanics	(213) 685-4242

STAFF: Full-time - professional 20, nonprofessional 20, total 40; part-time - professional 4, nonprofessional 0, total 4.

INTERNAL PUBLICATIONS: Handbooks/manuals; technical reports; reference file brochures.

HOLDINGS: Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations.

REFERENCE AND QUERY SERVICES: Questions answered individually; retrospective searches; selective dissemination of information; state-of-the-art reviews; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

OTHER SERVICES: Interlibrary loans; chemical instrumental analyses; Mechanical testing; Metallurgical investigations; Product certification; Sample preparation.

USER QUALIFICATIONS: General technology community; government employees; government contractors.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: Charge to all users for all services, price schedule available on request.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## AUBURN UNIV., MATERIALS ENGINEERING DEPT.

**ADDRESS:** Auburn University  
Auburn, AL  
36830

**TELEPHONE:** (205) 826-4820

**DIRECTOR:** Jemian, W. A.

**MISSION:** To engage in programs of education, research, and public service in the general area of materials engineering, especially as it applies to the principles of materials science.

**SUBJECT SCOPE:** Fire, explosion and detonations; Adhesives and seals; Composite materials; Bioengineering; Mechanics of structural failure; Structural materials limitations (metallic and nonmetallic); Structural engineering.

**MAJOR SUBJECT TERMS:** Medicine; Aerospace medicine; Structural failure; Mechanical engineering; Materials; Adhesives; Failure; Fires; Explosions; Structural engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Performed sponsored research for the U. S. Army Aeromedical Research Laboratory, Fort Rucker, Alabama, the Army Missile Command, Redstone Arsenal, Alabama, the Environmental Protection Agency, Atlanta, Georgia.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Hall, D.	Fires; Explosions; Textiles	(205) 826-4123
Jemian, W.	Failure Analysis; Life Sciences	(205) 826-4820
Maynor, H. W., Jr.	Failure Analysis; Structural Failure	(205) 826-4820
Wilcox, R. C.	Failure Analysis; Structural Failure	(205) 826-4820

**STAFF:** Full-time - professional 8, nonprofessional 1, total 9; part-time - professional 0, nonprofessional 0, total 0.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## AUSTIN RESEARCH ENGINEERS, INC. (ARE)

**ADDRESS:** 5706 Bee Cave Road  
Austin, TX  
78746

**TELEPHONE:** (512) 327-3520

**DIRECTOR:** Treybig, H. J.

**MISSION:** To provide specialized engineering, research and testing services in many phases of civil engineering and transportation for government, industry, consulting engineers and other agencies.

**SUBJECT SCOPE:** Soil mechanics; Air facilities; Structural engineering; Structural materials limitations (metallic and nonmetallic); Mechanics of structural failure; Civil engineering.

**MAJOR SUBJECT TERMS:** Systems engineering; Structural engineering; Earth sciences; Structural materials; Airports; Civil engineering; Pavements.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Current fields of research are in pavement design and evaluation, materials and soil mechanics, transportation and traffic, aviation and airports and structures and structural analysis.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Hudson, W. P.	Pavements; Systems Engineering	(512) 327-3520
McCullough, B. F.	Pavements; Systems Engineering	(512) 327-3520
Treybig, H. J.	Structural Engineering	(512) 327-3520
Rauhut, J. B.	Structural Engineering	(512) 327-3520
Finn, P.	Asphalt; Pavements	(512) 327-3520
Smith, P.	Construction; Earth Sciences; Mechanical Engineering	(512) 327-3520

**STAFF:** Full-time - professional 5, nonprofessional 4, total 9; part-time - professional 4, nonprofessional 2, total 6.

**INTERNAL PUBLICATIONS:** Abstracts; technical reports.

**HOLDINGS:** Reports and reprints; periodicals; films and slides.

**REFERENCE AND QUERY SERVICES:** State-of-the-art reviews; analytical studies; advisory and consulting services.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy (when available).

**USER QUALIFICATIONS:** General technology community; immediate staff or members; government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## AVIATION SAFETY INSTITUTE (ASI)

**ADDRESS:** Box 304  
Worthington, OH  
43085

**TELEPHONE:** (614) 885-4242

**DIRECTOR:** Galipault, J. B.

**YEAR INFORMATION SOURCE BEGAN:** 1973

**MISSION:** The Aviation Safety Institute is a rigorously independent, integrated research organization able to approach safety from all perspectives, collect and store information, analyze, pin-point, research and solve problems, then disseminate its findings.

**SUBJECT SCOPE:** Safety analysis; Aircraft flight instrumentation; Industrial safety manuals; Aircraft problems.

**MAJOR SUBJECT TERMS:** Standards; Safety regulations; Accident prevention; Safety engineering; Air traffic control; Flight paths; Radar; Flight control; Civil aviation; Human factors engineering; Aircraft safety.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** ASI has initiated: a nationwide safety data system that provides immediately practical information; work on safety standards based on current research; studies of risk rating procedures for underwriters, based on hard data.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Galipault, J. B.	Aircraft Safety	(614) 885-4242

**STAFF:** Full-time - professional 2, nonprofessional 0, total 2; part-time - professional 10, nonprofessional 5, total 15.

**INTERNAL PUBLICATIONS:** Technical reports; statistical compilations; periodicals/journals; newsletters/trade literature; conference papers; standards and specifications.

**HOLDINGS:** Reports and reprints; periodicals; statistical compilations; films and slides; total number of titles 5; range of years of total 3.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
ASI STAT	Unsafe Acts-Conditions	2.4	12,000+
EARS	Error Analysis and Rating System	1.0	5,000+

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community (aviation); immediate staff or members; staff or members of affiliated organizations; ad hoc permission; government employees.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## AVIATION SIMULATIONS INTERNATIONAL (ASI)

ADDRESS: P.O. Box 358  
Huntington, NY  
11743

TELEPHONE: (516) 271-6476

DIRECTOR: Joline, E. S.

YEAR INFORMATION SOURCE BEGAN: 1970

MISSION: Aviations Simulations International specializes in the development and application of simulation, mathematical modeling, and operations research techniques for system planning applications.

SUBJECT SCOPE: Operations research; Miscellaneous detection; Air facilities; Information theory (coding).

MAJOR SUBJECT TERMS: Aircraft safety; Air traffic control; Detectors; Civil aviation; Flight simulation.

RESEARCH AND DEVELOPMENT ACTIVITIES: Research and development in the following areas: airport/airspace simulation, systems safety, and failure/repair concepts and process optimization.

SPECIAL SCOPE FEATURES: Expertise in the areas of systems safety applications to launch vehicles, manned space vehicles and the design of automatic diagnosis and decision equipment.

## STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Joline, E. S.	Flight Simulation	(516) 271-6476

INTERNAL PUBLICATIONS: Technical reports; periodicals/journals.

HOLDINGS: Reports and reprints; periodicals.

REFERENCE AND QUERY SERVICES: Questions answered individually; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Hard copy.

USER QUALIFICATIONS: General technology community; government contractors.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: Charge to all users for all services.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## AVIATION SYSTEMS COMMAND REFERENCE LIBRARY (AVSCOM)

**ADDRESS:** US Army Aviation Systems Command  
**ATTN:** AMSAV-ZDR  
**PO Box 209**  
**St. Louis, MO**  
**63166**

**TELEPHONE:** (314) 268-3764

**DIRECTOR:** Levett, W. L.

**PARENT-SPONSOR-HOST AFFILIATION:** US Army Materiel Command

**YEAR INFORMATION SOURCE BEGAN:** 1954

**MISSION:** To acquire, catalog, classify, process, and review administrative, scientific, and technical publications in support of the command's mission and functions.

**SUBJECT SCOPE:** Aircraft; Aeronautics; Structural engineering; Reliability.

**MAJOR SUBJECT TERMS:** Aircraft problems; Stress analysis; Flight control; Maintenance; Inspection.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Support of Army activities in researching Army aircraft procurement, and maintenance systems.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Levett, W. L.	Aeronautics	(314) 268-3764
Liston, B. W.	Aeronautics	(314) 268-3764

**STAFF:** Full-time - professional 3, nonprofessional 5, total 8; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Abstracts; indexes; statistical compilations; periodicals/journals; reference lists/bibliographies; standards and specifications; magnetic tape bibliographic data.

**HOLDINGS:** Books 5,500; abstracts/indexes; reports and reprints 26,000; periodicals 45,100; reference lists/bibliographies; standards and specifications 87,000; catalogs: 15,000; total number of titles 178,600.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; state-of-the-art reviews; advisory and consulting services; referrals; bibliographic abstracts; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** On-site use of collection; interlibrary loans; reproduction/publication services; courses/workshops.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfilm copy; microfiche copy.

**USER QUALIFICATIONS:** Staff or members of affiliated organizations; government employees; government contractors.

**USER RESTRICTIONS:** Federal security clearance; registration with DDCI.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

**BARSON, J. M., CONSULTANT**

**ADDRESS:** U. S. Steel Research Laboratory  
M.S. 78  
Monroeville, PA  
15145

**TELEPHONE:** (412) 351-3100

**SUBJECT SCOPE:** Metals; Corrosion; Mechanics of structural failure; Structural materials limitations (metallic and nonmetallic); Structural engineering.

**MAJOR SUBJECT TERMS:** Metallurgy; Materials; Steels; Fatigue (materials); Corrosion; Structural engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Dr. Barson is responsible for analytical and experimental studies in the area of mechanical behavior of steels and for developing experimental and analytical procedures to evaluate the behavior of materials, weldments and structural details in the areas of fracture, fatigue, and corrosion fatigue.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Barson, J. D.	Steels; Structural Materials	(412) 351-3100

**REFERENCE AND QUERY SERVICES:** Advisory and consulting services.

DECEMBER 1975

## BARTLESVILLE ENERGY RESEARCH CENTER (ERDA)

**ADDRESS:** P.O. Box 1398  
Bartlesville OK  
74003

**TELEPHONE:** (918) 336-2400

**DIRECTOR:** Ball, J. S.

**PARENT-SPONSOR-HOST AFFILIATION:** Energy Research and Development Administration

**YEAR INFORMATION SOURCE BEGAN:** 1918

**MISSION:** To conduct such programs of research as are necessary to inform the government on technological developments, and to stimulate the private sector in the production of liquid and gaseous fuels and chemical raw materials in a manner that reduces waste, conserves resources, and ensures that petroleum-based products are used and disposed of without objectionable social and environmental costs.

**SUBJECT SCOPE:** Thermodynamics; Chemistry; Jet and gas turbine engines; Fuels; Mining engineering; Geology and mineralogy; Oils, lubricants and hydraulic fluids; Nuclear instrumentation.

**MAJOR SUBJECT TERMS:** Gas detectors; Mining; Electronics; Thermodynamics; Fuels; Engines; Chemistry; Waste disposal; Oils; Liquified gases.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Current projects are in the fields of petroleum recovery; thermodynamic properties of hydrocabons; chemistry and refining of petroleum and synthetic fuels; and automotive engine-fuel relationships.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Thompson, C. J.	Fuels	(918) 336-2400 ext. 204
Whisman, M. L.	Lubricants	(918) 336-2400 ext. 251
Collins, A. G.	Earth Sciences; Oils	(918) 336-2400 ext. 282
Johansen, R. T.	Oils; Earth Sciences	(918) 336-2400 ext. 206
Armstrong, F. E.	Gas Detectors	(918) 336-2400 ext. 278
Dousin, D. R.	Thermodynamics	(918) 336-2400 ext. 210
Hurn, R. W.	Engines	(918) 336-2400 ext. 253

**STAFF:** Full-time - professional 74, nonprofessional 98, total 172; part-time - professional 1, nonprofessional 44, total 45.

**INTERNAL PUBLICATIONS:** Indexes; technical reports; newsletters/trade literature; conference papers.

**HOLDINGS:** Books 13,000; abstracts/indexes; reports and reprints; periodicals 200; total number of titles 3,600; range of years of total 1918-date.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
STORET	Water analyses		50,000
Crude oil analyses		50	80,000

**REFERENCE AND QUERY SERVICES:** Questions answered individually.

**OTHER SERVICES:** On-site use of collection; accession of new acquisition lists; interlibrary loans; conferences/symposiums.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

DECEMBER 1975

BATTELLE MEMORIAL INST., LIBRARY AND INFORMATION SERVICES

**ADDRESS:** Battelle Memorial Institute  
Pacific Northwest Laboratory  
PO Box 999  
Richland, WA  
99352

**TELEPHONE:** (509) 942-1111 ext 3611

**DIRECTOR:** Snyder, W. A.

**YEAR INFORMATION SOURCE BEGAN:** 1948

**MISSION:** To serve the information needs of US Energy Research and Development Administration at the Hanford, Washington, plant.

**SUBJECT SCOPE:** Nuclear safety; Nuclear science and technology; Materials; Metals; Mathematical sciences; Physics; Chemistry.

**MAJOR SUBJECT TERMS:** Nuclear physics; Nuclear engineering; Reactor safety; Environments; Information retrieval; Physics; Chemistry; Mathematics; Metallurgy; Materials.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Snyder, W. A.	Information Retrieval	(509) 942-1111 ext 3611

**STAFF:** Full-time - professional 13, nonprofessional 24, total 37; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Reference lists/bibliographies.

**HOLDINGS:** Books 40,000; reports and reprints 250,000; periodicals 2,000.

**REFERENCE AND QUERY SERVICES:** Retrospective searches; referrals.

**OTHER SERVICES:** Interlibrary loans.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfiche copy.

DECEMBER 1975

BECKER, HERBERT, CONSULTANT

ADDRESS: 80 Boulder Road  
Newton Center, MA  
02159

TELEPHONE: (617) 969-6974

MISSION: To support industry with technical information and consultation on structures, materials and design problems; to identify areas where safety problems and technology voids exist and to initiate research programs in these problem areas; to author and compile state-of-the-art and summary publications in areas of concern.

SUBJECT SCOPE: Mechanics of structural failure; Structural materials limitations (metallic and nonmetallic); Cryogenic safety: Aircraft problems; Safety analysis; Specifications and standards.

MAJOR SUBJECT TERMS: Safety engineering; Cryogenic fluid safety; Structural failure; Structural engineering; Structural materials; Aerospace engineering; Safety analysis; Fatigue (materials); Standards.

RESEARCH AND DEVELOPMENT ACTIVITIES: Perform research projects on pressure vessels, ships and machinery.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Becker, H.	Structural Engineering; Structural Materials	(617) 969-6974

INTERNAL PUBLICATIONS: Handbooks/manuals; technical reports.

REFERENCE AND QUERY SERVICES: Advisory and consulting services.

DECEMBER 1975

## BENET LABORATORIES, TECHNICAL INFORMATION SERVICES OFFICE (TISO)

**ADDRESS:**

Watervliet, NY  
12019

**TELEPHONE:** (518) 273-4610**DIRECTOR:** Vrooman, G. K.**PARENT-SPONSOR-HOST AFFILIATION:** Watervliet Arsenal**MISSION:** To specialize in material on the research and development of the US Army's conventional weapons.**SUBJECT SCOPE:** Ordnance; Mathematical sciences; Composite materials; Thermodynamics; Solid state physics; Physical and general chemistry; Mechanics; Metals.**MAJOR SUBJECT TERMS:** Physics; Thermodynamics; Chemistry; Mathematics; Materials; Metallurgy; Information retrieval.**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Vrooman, G. K.	Information Retrieval	(518) 273-4610

**STAFF:** Full-time - professional 5, nonprofessional 2, total 7; part-time - professional 0, nonprofessional 0, total 0.**INTERNAL PUBLICATIONS:** Abstracts; indexes; reference lists/bibliographies, accession lists.**HOLDINGS:** Books 9,000; reports and reprints.**REFERENCE AND QUERY SERVICES:** Retrospective searches; referrals; custom abstracting and indexing services; SDI services.**OTHER SERVICES:** Interlibrary loans; reproduction/publication services.**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Microfilm copy; microfiche copy.**USER QUALIFICATIONS:** Government employees.**USER RESTRICTIONS:** Federal security clearance.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## BOEING AEROSPACE CO., EXPERIENCE ANALYSIS CENTER

**ADDRESS:** Boeing Aerospace Company  
P.O. Box 3999  
Seattle, WA  
98124

**TELEPHONE:** (206) 655-1941

**DIRECTOR:** Herrold, G. R.

**MISSION:** To provide support to all Boeing Aerospace Company programs, and also to conduct data exchange with other divisions, companies and government agencies.

**SUBJECT SCOPE:** Missile technology; Safety analysis; Reliability; Mathematical sciences; Electronics and electrical engineering; Aircraft problems; Space vehicle problems; Atmospheric sciences.

**MAJOR SUBJECT TERMS:** Mechanical engineering; Aerospace engineering; Reliability; Safety analysis; Mathematics; Electronics; Missiles; Aircraft problems; Information retrieval; Spacecraft.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Herrold, G. R.	Information Retrieval	(206) 655-1941

**INTERNAL PUBLICATIONS:** Handbooks/manuals; abstracts; indexes; technical reports; statistical compilations; graphics/tabular materials.

**HOLDINGS:** Books; reports and reprints; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides; total number of titles 175,000.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; state-of-the-art reviews; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Interlibrary loans.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** Registration with DDC.

**PRICING AND SERVICES CHARGES:** Charge for user outside organization.

DECEMBER 1975

## BOEING AEROSPACE CO., PRODUCT AND SYSTEM SAFETY ORGANIZATION

**ADDRESS:** P.O. Box 3999-Mail Stop 8A-83  
Seattle, WA  
98124

**TELEPHONE:** (206) 773-1270

**DIRECTOR:** Trettin, H. D.

**YEAR INFORMATION SOURCE BEGAN:** 1961

**MISSION:** To provide the Boeing Aerospace Company with technical and managerial leadership in product and system safety, that will result in product safety commensurate with the functional use and cost-effectiveness of the product.

**SUBJECT SCOPE:** Safety analysis; Space vehicle problems; Materials; Aircraft problems; Nuclear safety; Reliability; Dangerous materials; Man-machine hazards.

**MAJOR SUBJECT TERMS:** Personnel development; Safety engineering; Transportation; Materials; Fire prevention; Missiles; Structural engineering; Shock; Safety engineering; Reliability; Explosives; Propulsion system performance; Nuclear reactors; Accidents; Safety analysis; Safety procedures; Safety equipment; Shielding; Aerospace engineering; Stress analysis; Product safety; Systems engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Research in safety analysis techniques; structural safety; space safety; human factors; surface transportation and nuclear reactor safety.

**SPECIAL SCOPE FEATURES:** In conjunction with system safety activities performs the following safety tasks; system safety program plan, preliminary hazard analysis, fault tree analysis, operational hazard analyses and design reviews.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Trettin, H. D.	Product Safety; Systems Engineering	(206) 773-1270

**STAFF:** Full-time - professional 95, nonprofessional 0, total 95; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; reference lists/bibliographies.

**HOLDINGS:** Reports and reprints; periodicals; standards and specifications.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
	Materials in System Safety Reliability, Maintainability and Design Engineering		35,000

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy if not proprietary.

**USER QUALIFICATIONS:** General technology community; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## BOEING AEROSPACE CO., SAFETY ENGINEERING

**ADDRESS:** P.O. Box 58747  
Houston, TX  
77058

**TELEPHONE:** (713) 488-0910 ext 621

**DIRECTOR:** O'Tyson, C.

**PARENT-SPONSOR-HOST AFFILIATION:** NASA

**YEAR INFORMATION SOURCE BEGAN:** 1964

**MISSION:** To support Johnson Space Center, NASA, in performing safety analyses, developing safety requirements, and assessing operational safety for manned space vehicles; support hardware and on-board experiments/crew equipment to identify potential hazards. Safety support also is provided in manned test operations. Special studies to evaluate risks associated with identified hazards are performed. Methods of eliminating or controlling hazards are determined. In addition, safety analyses are conducted on equipment being developed by the JSC for use in nonaerospace applications.

**SUBJECT SCOPE:** Safety analysis; Fire, explosion and detonations; Man-machine hazards; Extraterrestrial environmental hazards; Space vehicle problems; Industrial safety manuals, codes, specifications, standards; Dangerous materials.

**MAJOR SUBJECT TERMS:** Safety engineering; Transportation; Fire hazards; Operations research; Aerospace engineering; Electric batteries; Radiation effects; Reactor safety; Safety analysis; Lightning; Industrial safety; Physiological hazards; Environments; Safety engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Performed special safety studies on biomedical instrumentation and apparatus for nonaerospace applications; performed safety analyses on major transportation systems; developed and improved techniques for performing hazard analyses.

**SPECIAL SCOPE FEATURES:** Expertise in safety logic diagram and other hazard analysis techniques; fire, explosion, and detonations; space vehicle safety problems; radiation; flammable and toxic materials, safety requirements; manned test operations safety; space environment hazards; electrical shock protection; battery safety; industrial safety; nuclear safety.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
O'Tyson, C.	Systems Engineering	(713) 488-0910 ext 621
McMurdo, R. B.	Systems Engineering	(713) 488-0910 ext 231

**STAFF:** Full-time - professional 33, nonprofessional 6, total 39; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; conference papers.

**HOLDINGS:** Reports and reprints; reference lists/bibliographies; standards and specifications.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
SRQA Document Index	Safety, Reliability & Quality Assurance Technical Data	1964-	170,000

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; state-of-the-art reviews; advisory and consulting services; referrals; bibliographic abstracts.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy if not proprietary.

**USER RESTRICTIONS:** None for unclassified material (NASA data release approval required).

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## BOEING AEROSPACE CO., SNEAK CIRCUIT ANALYSIS GROUP

**ADDRESS:** P.O. Box 58747  
Houston, TX  
77058

**TELEPHONE:** (713) 488-0910

**DIRECTOR:** Heuer, D. A.

**YEAR INFORMATION SOURCE BEGAN:** 1967

**MISSION:** The development and implementation of a formalized computer aided electrical systems analysis technique to assure trouble free operation of electrical hardware. To uncover latent circuit paths (sneak circuits that are missed by testing and other analysis techniques) which will result in unexpected modes of operation.

**SUBJECT SCOPE:** Miscellaneous detection; Computers; Reliability; Electrical subsystems; Electronic and electrical engineering.

**MAJOR SUBJECT TERMS:** Safety equipment; Quality control; Reliability; Inspection; Electrical/electronic engineering; Electricity.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Software Sneak Circuit Analysis-Adapt the proven error-detecting capabilities of Sneak Circuit Analysis to development of computer-aided techniques for discovering potentially costly defects in real time computer programs for mission operations. Sneak Circuit Analysis of Digital Logic Circuits-Extend the techniques developed for hard-wired analog circuits to complex digital circuits.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Heuer, D. A.	Electrical/Electronic Engineering	(713) 488-0910 ext 235
Rankin, J. P.	Aerospace Engineering; Nuclear Engineering	(713) 488-0910 ext 239
Wilson, J. L.	Aerospace Engineering; Nuclear Engineering	(713) 488-0910 ext 254
Hill, E. J.	Aircraft Problems	(713) 488-0910 ext 237
Campbell, J. B.	Aircraft Problems	(713) 488-0910 ext 242

**STAFF:** Full-time - professional 50, nonprofessional 12, total 62; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; statistical compilations; newsletters/trade literature; conference papers; standards and specifications.

**REFERENCE AND QUERY SERVICES:** Analytical studies; advisory and consulting services; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy if not priority.

**USER QUALIFICATIONS:** General technology community; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## BOEING VERTOL CO., PRODUCT ASSURANCE AND SYSTEM SAFETY

**ADDRESS:** Boeing Center, M.S. P30-37  
 P.O. Box 16858  
 Philadelphia, PA  
 19142

**TELEPHONE:** (215) 522-7907

**DIRECTOR:** Windolph, G. W.

**YEAR INFORMATION SOURCE BEGAN:** 1950

**MISSION:** To provide statistical compilations and individual detailed summaries of helicopter accidents and incidents for the purposes of establishing design objective, criteria and guidelines. Also, to perform detailed safety analyses of new systems using accident history and hypothesizing hazardous effects of predictable failure modes to achieve the desired safety characteristics. The objective is to identify, evaluate, and eliminate or control potential hazards in helicopters from conception through the design, manufacturing, testing, and operation.

**SUBJECT SCOPE:** Aircraft problems; Aeronautics; Human factors engineering; Safety analysis; Safety engineering; Structural engineering; Reliability; Man-machine hazards.

**MAJOR SUBJECT TERMS:** Aircraft safety; Civil aviation; Failure; Accidents; Safety equipment; Structural engineering; Maintenance; Detectors; Systems engineering; Accident prevention; Warning systems; Inspection; Shielding; Survival; Product safety.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Subsystem design approaches, crashworthiness concepts, statistical methods, system condition monitoring and diagnostic devices and subsystems.

**SPECIAL SCOPE FEATURES:** Services include: statistical research; safety criteria; system safety and crash survivability analysis; hardware concepts and development.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Senderoff, I.	Product Safety	(215) 522-2268
Sand, E.	Systems Engineering	(215) 522-3476
Eagle, K.	Reliability	(215) 522-3327
Quinn, E.	Human Factors Engineering	(215) 522-7274
Pruyn, R.	Survival	(215) 522-3283

**STAFF:** Full-time - professional 28, nonprofessional 0, total 28; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; abstracts; indexes; technical reports; statistical compilations; periodicals/journals; newsletters/trade literature; conference papers; reference lists/bibliographies.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
--	Helicopter Mishap Histories	1950-Present	
--	Computerized Helicopter Dynamic Components Reliability Data Bank	1967-Present	
KRASH	Elasto-plastic Finite Element Analysis of Aircraft Structures under Crash Loading	1973-Present	
STWKWT	Elasto-plastic Plane Frame Analysis of Aircraft Structures under Crash Loading	1974-Present	
PROMETHEUS	Non-Linear Dynamic Analysis of Vehicle Occupants under Crash Environment	1974-Present	
Q13INSTR	Crew Station Reach and Internal Visibility Envelope	1973-Present	
Q1CDR	Windshield Visibility Plot	1973-Present	

BOEING VERTOL CO., PRODUCT ASSURANCE AND SYSTEM SAFETY

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; analytical studies; advisory and consulting services.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## BOLT BERANEK AND NEWMAN, INC. (BBN)

**ADDRESS:** 50 Moulton Street  
Cambridge, MA  
02138

**TELEPHONE:** (617) 491-1850

**DIRECTOR:** Eldred, R. M.

**YEAR INFORMATION SOURCE BEGAN:** 1948

**MISSION:** Bolt Beranek and Newman, Inc., working in the areas of physical, environmental, behavioral and information sciences, provides consulting, research and development services to clients in government and industry. Safety related expertise centers on problems of noise and vibrations and human factors in this area.

**SUBJECT SCOPE:** Computers; Behavioral and social sciences; Information theory (coding); Acoustic detection; Acoustics.

**MAJOR SUBJECT TERMS:** Personnel development; Shock; Vibration; Human factors engineering; Noise (sound); Environments.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Research and Development in the following areas: Aerospace Vehicle Noise Vibrations and Structural Response, Rail Environmental Noise, Control of Ship Noise and Vibration Traffic Noise, Noise and Vibration Control, Architectural Technologies and Behavioral and Information Sciences.

**SPECIAL SCOPE FEATURES:** Complete technical research facilities include advanced-design acoustical wind tunnels, an anechoic and reverberant chamber, a well-equipped acoustics laboratory, a unique underwater sound laboratory, an instrument and transducer development facility, a laboratory for delivery-testing computer systems, a variety of graphic display systems, and several time-shared computers, one of which connects to a nationwide network of research computers.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Brown, N. A.	Vibration; Ships; Noise (sound)	(617) 491-1850
Heart, R. E.	Computer Techniques	(617) 491-1850
Barger, J. E.	Physics	(617) 491-1850
Schultz, T. J.	Architecture; Noise (sound)	(617) 491-1850
Baron, S.	Information Retrieval	(617) 491-1850
Bruce, R. D.	Environments; Noise (sound)	(617) 491-1850
Hirtle, P. W.	Architecture	(617) 491-1850
Starr, E. A.	Instruments	(617) 491-1850
Ungar, E. E.	Vibration; Structural Engineering	(617) 491-1850
Jackson, F. J.	Ships	(703) 524-4870

**STAFF:** Full-time - professional 300, nonprofessional 385, total 635; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; statistical compilations; periodicals/journals; newsletters/trade literature; conference papers; reference lists/bibliographies; standards and specifications; graphics/tabular materials.

**HOLDINGS:** Books 4,000; abstracts/indexes; reports and reprints; periodicals 275 ; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides; range of years of total 1955-present.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; prior art/patent searches; state-of-the-art reviews; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

CANALE RESEARCH

**ADDRESS:** 625 Randall St.  
Redgecrest, CA  
93555

**TELEPHONE:** (714) 375-4997

**DIRECTOR:** Canale, S.

**YEAR INFORMATION SOURCE BEGAN:** 1971

**MISSION:** To provide systems analysis, and system safety services to the government, industry and private individuals.

**SUBJECT SCOPE:** Safety analysis; Safety education and training; Mechanics of structural failure; Operations research; Metals; Mathematics and statistics.

**MAJOR SUBJECT TERMS:** Accident investigation; Fatigue (materials); Safety analysis; Electricity; Safety equipment; Industrial safety; Safety procedures; Safety engineering; Reliability; Systems engineering; Aerospace engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Safety research on relative hazard rating system for consumer products, economic safety analysis, and safety criteria.

**SPECIAL SCOPE FEATURES:** Expertise in: hazard analysis, fault tree analysis, cost effectiveness, accident analysis/reconstruction, safety education, simulations/analogies, time state modeling, prediction analysis and metallic fatigue failure.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Canale, S.	Systems Engineering; Product Safety	(714) 375-4997

**STAFF:** Full-time - professional 1, nonprofessional 2, total 3; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Technical reports; conference papers.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## CENTER FOR SHORT-LIVED PHENOMENA (CSLP)

**ADDRESS:** Center for Short-Lived Phenomena  
60 Garden Street  
Cambridge, MA  
02138

**TELEPHONE:** (617) 864-7911

**DIRECTOR:** Citron, R.

**PARENT-SPONSOR-HOST AFFILIATION:** Smithsonian Institution

**YEAR INFORMATION SOURCE BEGAN:** 1968

**MISSION:** As an early-alert communications headquarters, CSLP, receives and relays scientific information on significant shortlived events throughout the world. Reports of events in the following categories - earth science, astrophysics, urgent anthropology and biological science are communicated to 2,300 corresponding scientists and scientific institutions in 148 countries.

**SUBJECT SCOPE:** All categories and subcategories.

**MAJOR SUBJECT TERMS:** Aeronautics; Transportation; Materials; Energy; Structural materials; Fire hazards; Aerospace engineering; Physics; Extraterrestrial environments; Nuclear physics; Chemistry; Accidents; Navigation aids; Life sciences; Earth sciences.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** The CSLP has no investigative power of its own but it does initiate follow up studies by its correspondents. It is presently involved in the designing of a Global Environmental Monitoring System with the UN and coordinates the International Environmental Alert Network, a student based reporting system.

**SPECIAL SCOPE FEATURES:** Major interest in earthquakes, volcanic eruptions and oil and hazardous material spills. International information on earthquakes, volcanoes, and oil spills furnished by both US and foreign sensing stations.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Squires, D.	Earth Sciences	(617) 868-4307
Scallion, P.	Pollution; Life Sciences	(617) 868-4307

**STAFF:** Full-time - professional 7, nonprofessional 2, total 9; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Technical reports; periodicals/journals; newsletters/trade literature.

**HOLDINGS:** Reports and reprints.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; referrals; scientific or statistical data retrieval/compilation.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

**CHURCH, J. M., CONSULTANT**

**ADDRESS:** Department of Chemical Engineering  
Columbia University  
New York, NY  
10027

**TELEPHONE:** (212) 280-4447

**DIRECTOR:** Church, J. M.

**YEAR INFORMATION SOURCE BEGAN:** 1943

**MISSION:** The investigation and study of fires, explosions and flammability of fabrics through industry and education.

**SUBJECT SCOPE:** Fire, explosion and detonation; Industrial safety manuals, codes, specifications, standards; Plastics; Chemical engineering; Organic chemistry; Fibers and textiles.

**MAJOR SUBJECT TERMS:** Textiles; Plastics; Fire resistant materials; Fire prevention; Explosions; Fires; Fire hazards; Safety procedures; Safety regulations; Safety analysis; Chemical engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** The investigation of fires and explosions, and the recommendation of preventative measures to eliminate them.

**SPECIAL SCOPE FEATURES:** Consulting services in the areas of fires and/or explosions in gas storage tanks, industrial plants, public institutions and commercial residences. Expertise in health and damage due to fabric or material fires. Other areas include propellants, fuels, lubricants, solvents, and flammability of fabrics and aircraft interior.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Church, J. M.	Fires; Explosions	(212) 280-4447

**INTERNAL PUBLICATIONS:** Technical reports; periodicals/journals; newsletters/trade literature; conference papers.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

**CLIMAX MOLYBDENUM CO. (AMAX)**

**ADDRESS:** Technical Information Center  
One Greenwich Plaza  
Greenwich, CT  
06830

**TELEPHONE:** (203) 661-3000 ext 351

**DIRECTOR:** Barr, R. Q.

**PARENT-SPONSOR-HOST AFFILIATION:** AMAX, Inc.

**YEAR INFORMATION SOURCE BEGAN:** 1955

**MISSION:** The Technical Information Center collects, stores, and retrieves technical information needed by customers, students, educators and company personnel. It also maintains a library collection in relevant fields.

**SUBJECT SCOPE:** Inorganic chemistry; Metals.

**MAJOR SUBJECT TERMS:** Metallurgy; High strength alloys; Corrosion; Chemical properties; Molybdenum.

**SPECIAL SCOPE FEATURES:** Metallurgy and chemistry of molybdenum, tungsten, and products containing one or more of these elements. Also literature available on corrosive resistance, strengthening mechanisms and molybdenum in life processes.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Morrow, H., III	Heat Resistant Alloys	(203) 622-3592
McArdle, G.	Refractories	(203) 622-3588
Barr, R. H.	Chemistry: Abrasives	(203) 622-3587

**STAFF:** Full-time - professional 4, nonprofessional 3, total 7; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Books; handbooks/manuals; abstracts; technical reports; statistical compilations; periodicals/journals; newsletters/trade literature; conference papers; reference lists/bibliographies; standards and specifications.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; total number of titles 2000; range of years of total 20.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
TERMATREX	Mo, W steels and alloys containing Mo and W.	20	60,000

**REFERENCE AND QUERY SERVICES:** Retrospective searches; translations; custom abstracting and indexing services.

**OTHER SERVICES:** On-site use of collection; reproduction/publication services.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; staff or members of affiliated organizations.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** All services free to qualified users.

DECEMBER 1975

## COAST GUARD, CARGO AND HAZARDOUS MATERIALS DIVISION (G-MHM)

**ADDRESS:** COMDT (G-MHM-83)  
US Coast Guard  
Washington, DC  
20590

**TELEPHONE:** (202) 426-2297

**DIRECTOR:** Mathieu, Capt. C. E.

**YEAR INFORMATION SOURCE BEGAN:** 1940

**MISSION:** To protect life and property at sea; to promote the safe transportation and use of packaged and bulk hazardous materials in the marine mode; administration of the Dangerous Cargo Act; administration of the Safe Container Convention of 1972 and the Customs Convention on Freight Containers.

**SUBJECT SCOPE:** Containers and packaging; Marine engineering; Safety engineering; Radioactivity; Dangerous materials.

**MAJOR SUBJECT TERMS:** Explosives; Reactor safety; Transportation; Shipping regulations; Safety regulations; Chemical hazards; Protective equipment; Compressed gas; Liquified gases; Corrosion; Oxidation; Hazardous materials; Toxicity; Chemical properties; Fire prevention; Cargo.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Supports/commissions research in the areas of the major subject terms. Research oriented towards enabling promulgation of better or new safety regulations.

**SPECIAL SCOPE FEATURES:** G-MHM expertise is safety and chemical technology in the areas of explosives, flammables, poisons, corrosives, oxidizers, gases, radioactive materials, and other hazardous articles; fire protection; personnel safety; cargo containment systems; chemical compatibility; multimodal freight containers; portable tanks; vessel and cargo accelerations.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Allen, M. H.	Cargo	(202) 426-1577
Altemos, E. A.	Hazardous Materials; Cargo	(202) 426-1577
Dickey, T. R.	Liquified Gases	(202) 426-1217
Luckritz, R. T.	Hazardous Materials; Cargo	(202) 426-1217
Morrisette, M. D.	Chemical Hazards; Toxicity	(202) 426-1218
Pfersich, E. P.	Quality Control; Ships	(202) 426-1219
Rawl, R. R.	Radioactive Materials	(202) 426-1579
Riikonen, D. A.	Explosives	(202) 426-1579
Roosmagi, C.	Barges; Chemical Hazards	(202) 426-1218
Schneider, A.	Liquified Gases	(202) 426-1219

**STAFF:** Full-time - professional 24, nonprofessional 9, total 33; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; statistical compilations; reference lists/bibliographies.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; statistical compilations; total number of titles 4700.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** All services free to qualified users.

ORIGINAL PAGE IS  
OF POOR QUALITY

DECEMBER 1975

COBALT INFORMATION CENTER (CIC)

ADDRESS: Battelle Memorial Institute  
505 King Avenue  
Columbus, OH  
43201

TELEPHONE: (614) 424-6424

DIRECTOR: Maykuth, D. J.

PARENT-SPONSOR-HOST AFFILIATION: Battelle Memorial Inst.

YEAR INFORMATION SOURCE BEGAN: 1956

MISSION: To give cobalt users technical assistance, to disseminate technical information, to encourage and aid research, and to develop new uses for cobalt.

SUBJECT SCOPE: Metals; Ceramics, refractories and glass; Adhesives and seals; Coatings, colorants and finishes; Corrosion and degradation.

MAJOR SUBJECT TERMS: Protective coatings; Adhesives; Chemical properties; Corrosion; Metallurgy; High strength alloys; Mechanical properties; Glass; Ceramics; Iron; Steels; Magnetic properties; Mechanical properties; Cobalt.

RESEARCH AND DEVELOPMENT ACTIVITIES: Sponsors research and development to understand the cobalt role in modern materials.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Maykuth, D. J.	Cobalt	(614) 424-6424

STAFF: Full-time - professional 1, nonprofessional 1, total 2; part-time - professional 2, nonprofessional 0, total 2.

INTERNAL PUBLICATIONS: Abstracts; indexes; technical reports; statistical compilations; periodicals/journals; conference papers; reference lists/bibliographies; graphics/tabular materials.

HOLDINGS: Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; statistical compilations; films and slides.

REFERENCE AND QUERY SERVICES: Questions answered individually; retrospective searches; state-of-the-art reviews; advisory and consulting services; referrals; bibliographic abstracts; scientific or statistical data retrieval/compilation.

OTHER SERVICES: On-site use of collection; reproduction/publication services; conferences/symposiums.

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Not available.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: Charge for some services to qualified users.

DECEMBER 1975

## COMMISSION FOR THE ADVANCEMENT OF PUBLIC INTEREST ORGANIZATIONS

**ADDRESS:** 1875 Connecticut Avenue, N.W. Suite 1013  
Washington, DC  
20009

**TELEPHONE:** (202) 462-0505

**DIRECTOR:** Clark, C. C.

**PARENT-SPONSOR-HOST AFFILIATION:** Monsour Medical Foundation

**YEAR INFORMATION SOURCE BEGAN:** 1974

**MISSION:** To support communities, the public, and public interest groups with technical, social and political information and consultation on public safety and other community interest problems; to initiate in-house research on aspects of these issues, particularly with regard to facilitating information flow to the community and public interest groups; to author state of the art summary publications in areas of public concern; to establish and operate a public interest data bank, Information Resources for Public Interest, in print and experimentally in on-line interactive computer form, which includes organizations, experts, legislation, and technical documents in the public safety and community interest areas.

**SUBJECT SCOPE:** Industrial safety manuals, codes, specifications, standards; Biological and medical sciences.

**MAJOR SUBJECT TERMS:** Life sciences; Life support systems; Physiology; Medicine; Nutrition; Hygiene; Protective equipment; Toxicity; Physiological hazards; Consumer protection.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Promotes research on public interest issues, including toxic pollution and other topics which have strong preventive medicine implications; identifies public candidates for advisory committees and consultants for community groups and develops means of improved telecommunications with community groups world-wide.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Clark, C. C.	Information Retrieval; Safety Analysis	(202) 462-0505
Halverson, Marlene	Water Pollution; Toxicity	(202) 462-0505
Gage, K.	Information Retrieval	(202) 462-0506
Kleypas, D.	Legal Liability; Consumer Protection	(202) 462-0507
Marcus, M.	Information Retrieval	(202) 462-0505
Charest, M.	Information Retrieval	(202) 462-0505

**STAFF:** Full-time - professional 5, nonprofessional 0, total 5; part-time - professional 1, nonprofessional 0, total 1.

**INTERNAL PUBLICATIONS:** Reference lists/bibliographies.

**HOLDINGS:** Books; reports and reprints; periodicals; standards and specifications.

**REFERENCE AND QUERY SERVICES:** Questions answered individually for public interest groups; selective dissemination of information; state-of-the-art reviews; analytical studies; referrals.

**OTHER SERVICES:** On-site use of collection; courses/workshops.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users (i.e. duplication costs).

DECEMBER 1975

## COMPREHENSIVE UNIVERSITY OF DAYTON ON-LINE SERVICES (CUDOS)

**ADDRESS:** University of Dayton Research Institute  
Information Systems Section KL 445  
300 College Park Avenue  
Dayton, OH  
45459

**TELEPHONE:** (513) 229-3711

**DIRECTOR:** Scheffler, F. L.

**PARENT-SPONSOR-HOST AFFILIATION:** Univ. of Dayton Research Inst.

**YEAR INFORMATION SOURCE BEGAN:** 1973

**MISSION:** The Information Systems Section is concerned with providing consulting and research activities to aid in the development of viable information systems and to advance the state-of-the-art in information processing and transfer. It also provides to various organizations access to a number of on-line data bases and information systems through the Comprehensive University of Dayton On-Line Service (CUDOS) program.

**SUBJECT SCOPE:** Structural materials limitations (metallic and nonmetallic); Mechanics of structural failure; Safety analysis; Metals; Composite materials; Ceramics, refractories and glass; Psychology; Biological and medical sciences; Toxicology; Chemistry; Physics; Computers.

**MAJOR SUBJECT TERMS:** Aircraft problems; Transportation; Vehicles (land); Failure; Physiological hazards; Personnel development; Acoustics; Environments; Spacecraft control; Ground support systems; Structural engineering; Structural failure; Safety analysis; Physics; Chemistry; Information retrieval.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** The Information Systems Section performs research and development work on information science-related activities and operates the CUDOS program. Current projects include abstracting and indexing literature on training for inclusion in an on-line system, and the analysis of profiles for selective dissemination of information.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Scheffler, F. L.	Information Retrieval	(513) 229-3711
March, J. P.	Information Retrieval	(513) 229-3711 or (513) 255-5197
Kroger, D. J.	Chemistry	(513) 229-3711

**STAFF:** Full-time - professional 5, nonprofessional 2, total 7; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Technical reports; newsletters/trade literature.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
NTIS	Federal Research & Development Reports	1970-	200,000
Chemistry and Chemical Engineering Abstracts	1970-		
Compendex	Engineering Journals	1970-	
EAIC	Educational Technical Reports & Journals	1970-	
INFORM	Business Journals		
TOXLINE	Environmental & Chemical Toxicology Data		
GEOREF	Geology Journals	1970-	

COMPREHENSIVE UNIVERSITY OF DAYTON ON-LINE SERVICES (CUDOS)

**REFERENCE AND QUERY SERVICES:** Retrospective searches; selective dissemination of information; state-of-the-art reviews; analytical studies; advisory and consulting services; bibliographic abstracts; scientific or statistical data retrieval/compilation; custom abstracting and indexing services.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfilm copy; microfiche copy.

**USER QUALIFICATIONS:** General technology community; government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## COMPRESSED GAS ASSOCIATION, INC. (CGA)

**ADDRESS:** 500 Fifth Avenue  
New York, NY  
10036

**TELEPHONE:** (212) 524-4796

**DIRECTOR:** Matthews, L. G.

**YEAR INFORMATION SOURCE BEGAN:** 1913

**MISSION:** To develop, coordinate, and provide technical activities in the compressed gas industries, including end uses of products, in the interest of safety and efficiency, and to the end that they may serve, to the fullest extent, the best interest of the public and industry.

**SUBJECT SCOPE:** Dangerous materials; Industrial safety manuals, codes, specifications, standards.

**MAJOR SUBJECT TERMS:** Safety regulations; Safety procedures; Industrial safety; Hazardous materials; Transportation; Cryogenic fluid safety; Compressed gas; Liquified gases; Fire hazards; Rescue operations; Materials tests.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** The CGA, through the workings of the following membership committees makes recommendations to and works with regulatory agencies at the local, state and federal level: Gas Industry Committee, Cylinder Manufacturer's Committee, Transportation Committee, General Technical Committee, Cryogenic and Low Temperature Committee, Industrial Gases Apparatus Committee, Gas Specifications Committee, and Air Separation Committee.

**SPECIAL SCOPE FEATURES:** The field of interest extends to all compressed gases, including atmospheric gases such as nitrogen, oxygen, argon and the rare gases; hydrocarbons such as propane, butane, methane and ethylene; refrigerants such as ammonia and the fluorocarbons; aerosol propellants; poisonous gases such as hydrogen cyanide and phosgene; medical gases such as nitrous oxide, cyclopropane and ethylene and numerous other gases including nitrogen oxides, chlorine, methylamines, sulphur dioxide, carbon monoxide and flourine.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Matthews, L. G.	Compressed gas	(212) 524-4796

**STAFF:** Full-time - professional 4, nonprofessional 4, total 8; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Books; handbooks/manuals; technical reports; statistical compilations; newsletters/trade literature; standards and specifications.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; total number of titles 200.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; referrals.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; staff or members of affiliated organizations.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for user outside organization.

DECEMBER 1975

## CONSUMER PRODUCT SAFETY COMMISSION (CPSC)

**ADDRESS:** 5401 West Bard Avenue  
Washington, DC  
20207

**TELEPHONE:** (301) 492-6534

**DIRECTOR:** Rashid, K. R.

**YEAR INFORMATION SOURCE BEGAN:** 1973

**MISSION:** The mission of the CPSC is: to protect the public against unreasonable risks of injury associated with consumer products; to assist consumers in evaluating the comparative safety of consumer products; to develop uniform safety standards for consumer products and to minimize conflicting state and local regulations; and to promote research and investigation in causes and prevention of product-related deaths, illness and injuries.

**SUBJECT SCOPE:** Man-machine hazards; Fire, explosion and detonations; Dangerous materials; Safety analysis; Propellants, fuels, lubricants, hydraulic fluids safety; Structural materials limitations (metallic and nonmetallic); Mechanics of structural failure.

**MAJOR SUBJECT TERMS:** Accident prevention; Accidents; Hazardous materials; Vehicles (land); Fuels; Human factors engineering; Physiological hazards; Toxicity; Chemical hazards; Electricity; Fire hazards; Fire prevention; Fire resistant materials; Safety engineering; Safety regulations; Safety analysis; Consumer protection; Product safety.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** The program for research and development encompasses standards development, technical analyses in response to notification of substantial product hazards, and longer term engineering studies. Other research areas covered include acute and chronic toxicity, biomedical analysis, and development of scientific and technical information data bases.

**SPECIAL SCOPE FEATURES:** The CPSC maintains for the purposes of technical information on product safety a reference library and service (TIPS) which maintains information on specific subject areas such as aluminum wiring, flammable products, combustible liquids, etc.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Early, R. D.	Information Retrieval	(301) 492-6463
Rashid, K. R.	Product Safety; Consumer Protection	(301) 492-6534

**STAFF:** Full-time - professional 500, nonprofessional 300, total 800; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; newsletters/trade literature; conference papers; reference lists/bibliographies; standards and specifications.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides; total number of titles 3,000.

ORIGINAL PAGE IS  
OF POOR QUALITY

CONSUMER PRODUCT SAFETY COMMISSION (CPSC)

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
Chemical	Chemical Names	--	10,000
Abstract			
Number Data			
Base			
Poison	Safety Packaging	--	315
Prevention			
Packaging Data			
Base			
NEISS (National Injury Information			
Electronic			
Injury			
Surveillance			
System)			

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** On-site use of collection; courses/workshops.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** All services free to qualified users.

DECEMBER 1975

**COSMODYNE**

**ADDRESS:** 2920 Columbia St.  
Torrance, CA  
90509

**TELEPHONE:** (213) 320-5650

**DIRECTOR:** Dowdell, T.

**PARENT-SPONSOR-HOST AFFILIATION:** Cordon International Corporation

**YEAR INFORMATION SOURCE BEGAN:** 1958

**MISSION:** Cosmodyne is the major energy processing, handling and storage system engineering and manufacturing division of Cordon International Corporation.

**SUBJECT SCOPE:** Cryogenic safety; Nuclear safety; Aerospace technology; Fuel systems.

**MAJOR SUBJECT TERMS:** Aerospace engineering; Cryogenic fluid safety; Reactor safety; Liquified gases; Nit gen; Nuclear power plants; Test equipment; Ground support systems; Oxygen; Hydrogen.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Research and development projects are in LNG processing, transfer and storage, nuclear waste removal, decontamination and gas treatment systems and aircraft and aerospace fuel systems.

**SPECIAL SCOPE FEATURES:** Cosmodyne has provided equipment to the ground support and aerospace industries since 1958. The company has manufactured storage tanks, centrifugal pumps, positive displacement pumps, vaporizers, and instrumentation equipment for all types of cryogenic liquids, such as liquid oxygen, liquid nitrogen, liquid hydrogen, etc. Since 1970 Cosmodyne has manufactured specialized systems for the removal and reduction of radioactive content of nuclear power plant gas streams.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Crowl, R.	Cryogenic Fluid Safety	(213) 320-5650
Rowe, H.	Cryogenic Fluid Safety	(213) 320-5650
Stockinger, S.	Reactor Safety	(213) 320-5650
Khandar, M. K.	Reactor Safety	(213) 320-5650

DECEMBER 1975

## CRANE PACKING COMPANY

**ADDRESS:** 6400 Oakton Street  
Morton Grove, IL  
60053

**TELEPHONE:** (312) 967-2400

**DIRECTOR:** Zobens, A.

**SUBJECT SCOPE:** Mechanical shaft seals; Packings.

**MAJOR SUBJECT TERMS:** Hydraulics; Materials tests; Materials; Rubber; Mechanical engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Research and development efforts concentrate on product development and testing and outside development contracts and contract testing.

**SPECIAL SCOPE FEATURES:** The specialty of Crane Packing is dynamic sealing devices. Carbon and graphite are used in the mechanical shaft seals. Besides mechanical shaft seals, the product line includes oil (lip) seals, shaft packings, lapping machines, PTFE stock shapes and custom molded/machined parts.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Dziedzic, J.	Tests	(312) 967-2400
Freimanis, I.	Materials; Chemistry	(312) 967-2400
Johnson, L.	Rubber; Chemistry	(312) 967-2400
Tsou, D. M.	Rubber; Chemistry	(312) 967-2400
Wisniewski, F.	Chemistry	(312) 967-2400
Ashworth, M.	Information Retrieval	(312) 967-2400

**STAFF:** Full-time - professional 24, nonprofessional 8, total 32; part-time - professional 3, nonprofessional 0, total 3.

**INTERNAL PUBLICATIONS:** Technical reports; standards and specifications; bulletins; brochures.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; standards and specifications.

**REFERENCE AND QUERY SERVICES:** Questions answered individually.

**OTHER SERVICES:** Interlibrary loans.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Not available.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## CRANSTON RESEARCH INC. (CRI)

**ADDRESS:** 6060 Duke Street  
Alexandria, VA  
22304

**TELEPHONE:** (703) 751-7323

**DIRECTOR:** Cranston, G. F.

**YEAR INFORMATION SOURCE BEGAN:** 1970

**MISSION:** The Corporation was formed to apply System Safety Engineering Techniques from the aerospace industry to other segments of our society in response to the current emphasis on accident prevention in all walks of life.

**SUBJECT SCOPE:** Safety analysis; Industrial safety manuals, codes, specifications, standards; Aircraft problems; Space vehicle problems; Dangerous materials; Nuclear safety; Propellants, fuels, lubricants, hydraulic fluids safety; Safety engineering; Ordnance; Reliability.

**MAJOR SUBJECT TERMS:** Systems engineering; Highway safety; Accident investigation, Safety equipment; Safety engineering; Safety analysis; Safety regulations; Standards; Industrial safety; Fire resistant materials; Fire prevention; Safety engineering; Acoustics; Hazardous materials; Aircraft safety; Reactor safety; Aerospace engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Study, analysis and design in the following areas: technical safety information, space safety, space accidents/incidents, risk management, and pump failures.

**SPECIAL SCOPE FEATURES:** Capabilities and facilities include: comprehensive safety technical libraries; experience in devising and implementing safety programs including training and education; administrative services for professional societies; and safety engineering placement service.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Cranston, G. F.	Systems Engineering; Safety Analysis	(703) 751-7323

**STAFF:** Full-time - professional 6, nonprofessional 0, total 6; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; indexes; technical reports; statistical compilations; newsletters/trade literature; conference papers; reference lists/bibliographies.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; total number of titles 3,000; range of years of total 1965-1975.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
Air		1965-1975	2,000
Transportation			
Safety			
Highway Safety		1965-1975	1,500
General Aviation		1965-1975	500
Safety			
Accidents-Suicides		1965-1975	2,000
Airport Safety		1965-1975	200
Safety Training and Awareness		1965-1975	1,000
Product Safety		1965-1975	200
Systems Safety		1965-1975	1,500
Safety Standards		1965-1975	150
Industrial Safety		1965-1975	1,000
Marine Safety		1965-1975	300
Hazardous Materials		1965-1975	150
Bicycle Safety		1965-1975	100

ORIGINAL PAGE IS  
ONE DOOR QUALITY

CRANSTON RESEARCH INC. (CRI)

**REFERENCE AND QUERY SERVICES:** Retrospective searches; selective dissemination of information; analytical studies; advisory and consulting services.

**OTHER SERVICES:** On-site use of collection; reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users; charge for user outside organization; charge to all users for all services.

DECEMBER 1975

## CRYOGENIC CONSULTANTS, INC.

**ADDRESS:** 1128 North Graham Street  
Allentown, PA  
18103

**TELEPHONE:** (215) 439-0419

**DIRECTOR:** Vander Arend, P. C.

**YEAR INFORMATION SOURCE BEGAN:** 1965

**MISSION:** To provide industry and the research community with engineering services in the field of low temperature technology. These services include conceptual design, economic evaluations, project management, safety reviews and studies, and process and equipment design.

**SUBJECT SCOPE:** Cryogenic safety; Dangerous materials; Safety analysis; Industrial safety manuals, codes, specifications, standards.

**MAJOR SUBJECT TERMS:** Safety engineering; Accident investigation; Safety analysis; Safety regulations; Safety procedures; Industrial safety; Safety equipment; Ground support systems; Cryogenic fluid safety; Hazardous materials; Systems engineering; Failure; Liquified gases.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Current projects include superconductors, the transportation and the installation of cryogenic substances and systems and test concepts for cooling systems.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Vander Arend, P. C.	Liquid Hydrogen; Liquid Helium	(215) 439-0419
Stoy, S. I.	Liquid Helium; Cryogenic Fluid Safety	(215) 439-0419
West, J. E.	Liquified Gases; Cryogenic Fluid Safety	(215) 439-0419

**STAFF:** Full-time - professional 3, nonprofessional 4, total 7; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Technical reports.

**HOLDINGS:** Books; reports and reprints; reference lists/bibliographies; standards and specifications.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; state-of-the-art reviews; analytical studies; advisory and consulting services.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## CRYPTANALYTIC COMPUTER SCIENCES, INC. (CCSI)

**ADDRESS:** 499 Cooper Landing Road  
Cherry Hill, NJ  
08034

**TELEPHONE:** (609) 667-5626

**DIRECTOR:** Waite, J. H.

**YEAR INFORMATION SOURCE BEGAN:** 1968

**MISSION:** To provide private industry and federal agencies with new procedures with which to gain new and additional insights into the cause and effect relationships of various phenomena.

**SUBJECT SCOPE:** Mathematics and statistics; Energy storage; (Electrical) components; Information theory (coding); Biological and medical sciences; Reprography; Mechanics of structural failure; Operations research.

**MAJOR SUBJECT TERMS:** Electric batteries; Power supplies; Medicine; Physiology; Physiological hazards; Toxicity; Systems engineering; Reliability; Information retrieval; Failure.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Research and Development in the areas of failure rate analysis, deterministic statistics, automated vocabulary transformation, pattern detection and analysis, medical information systems and "early warning" models in certain health areas.

**SPECIAL SCOPE FEATURES:** CCSI has developed information filing and retrieval systems in the areas of: engineering hardware, hazard and risk assessment, search systems and microforms.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Waite, J. H.	Mathematics	(609) 667-5626
Fischer, J. G.	Life Sciences; Medicine	(609) 667-5626
Latham, N. D.	Computer Systems Design	(609) 667-5626
Hicks, S.	Information Retrieval	(609) 667-5626
Epstein, S. D.	Computer Systems Design	(609) 667-5626
Paul, J. E.	Computer Programming	(609) 667-5626
Edner, P. G.	Life Sciences	(609) 667-5626

**STAFF:** Full-time - professional 7, nonprofessional 0, total 7; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; abstracts; technical reports; statistical compilations; graphics/tabular materials.

**HOLDINGS:** Books; reports and reprints; periodicals; films and slides.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; state-of-the-art reviews; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## DALTON RESEARCH CENTER (DRC)

**ADDRESS:** University of Missouri  
Columbia, MO  
65201

**TELEPHONE:** (314) 882-7586

**DIRECTOR:** Musacchia, X. J.

**PARENT-SPONSOR-HOST AFFILIATION:** Univ. of Missouri

**YEAR INFORMATION SOURCE BEGAN:** 1962

**MISSION:** To train graduate and post graduate students and to conduct interdisciplinary health related research.

**SUBJECT SCOPE:** Biochemistry; Physiology; Radiobiology; Biological and medical sciences; Cryogenic safety.

**MAJOR SUBJECT TERMS:** Physiology; Life sciences; Medicine; Cryogenic fluid safety.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Promote training of research specialists in physiology, bioengineering, cryobiology, and cellular and molecular chemistry.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext.(x)
Brown, O. R.	Medicine	(314) 882-6311
Musacchia, X. J.	Physiology	(314) 882-7586
Devaney, M. J.	Electronics; Medicine	(314) 882-6311
South, F. E.	Physiology	(314) 882-6311
Volkert, W. A.	Radiation; Medicine	(314) 882-6311

**STAFF:** Full-time - professional 13, nonprofessional 43, total 56; part-time - professional 9, nonprofessional 3, total 12.

**HOLDINGS:** Books; periodicals.

**REFERENCE AND QUERY SERVICES:** Questions answered individually.

**USER QUALIFICATIONS:** Staff or members of affiliated organizations.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

DUKE UNIV. EYE CENTER

ADDRESS: Box 3802  
Durham, NC  
27710

TELEPHONE: (919) 684-2032

DIRECTOR: Wolbarsht, M. L.

MISSION: To study the effects of various types of non-ionizing radiation on the eye.

SUBJECT SCOPE: Extraterrestrial environmental hazards; Dangerous industrial radiation; Industrial safety manuals, codes, specifications, standards, etc.; Optics; Lasers and lasers; Physiology; Safety analysis.

MAJOR SUBJECT TERMS: Physiology; Thermal radiation; Lasers; Aerospace medicine; Extraterrestrial environments; Radiation; Industrial safety; Physiological hazards; Standards; Safety regulations; Safety analysis; Eye (anatomy).

RESEARCH AND DEVELOPMENT ACTIVITIES: Current studies concern the development of a glare sensitivity test for drivers; the development of standards for laser safety in relation to industrial usage; the mode of genesis of cataracts from ultraviolet and infrared radiation, especially laser sources; and the mechanism of loss of visual sensitivity from intense visible light sources as related to their wavelength.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. [x]
Wolbarsht, M. L.	Medicine; Eye (Anatomy)	(919) 684-2032

STAFF: Full-time - professional 5, nonprofessional 2, total 7; part-time - professional 7, nonprofessional 2, total 9.

HOLDINGS: Books; reports and reprints; standards and specifications.

REFERENCE AND QUERY SERVICES: Questions answered individually.

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Hard copy not all available.

USER QUALIFICATIONS: Ad hoc permission.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: Charge for some services to qualified users.

DECEMBER 1975

## EARTH RESOURCES OBSERVATION SYSTEMS DATA CENTER (EROS)

**ADDRESS:**

Sioux Falls, SD  
57198

**TELEPHONE:** (605) 594-6511

**DIRECTOR:** Watkins, A. H.

**PARENT-SPONSOR-HOST AFFILIATION:** Department of the Interior

**YEAR INFORMATION SOURCE BEGAN:** 1971

**MISSION:** To receive, catalog, store, duplicate, and distribute aircraft and spacecraft remote sensor data obtained from the Department of the Interior, NASA, and any other sources; to provide training and assistance in the application of remote sensor data to resources and land use problems; to conduct research in the extraction of information from data and in the interpretation of data for natural resources and land use investigations; and to maintain a library of remote sensing publications.

**SUBJECT SCOPE:** Earth sciences and oceanography; Reprography; Infrared and ultraviolet detection; Optical detection; Radar detection; Spacecraft; Miscellaneous detection.

**MAJOR SUBJECT TERMS:** Detectors; Electromagnetic radiation; Thermal radiation; Microwaves; Spacecraft; Earth sciences; Environments; Mining; Oceanography; Telecommunications; Nondestructive evaluation.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Transfer of technology regarding the applications of remote sensing data to a widening scope of natural resource and environmental problems; digital classification and analysis of remotely sensed data.

**SPECIAL SCOPE FEATURES:** The data center reproduces and distributes as sale items copies of imagery, photography, electronic data, and computer products collected by various organizations. Data acquisitions from the following sources are included: Earth Resources Technology Satellite (ERTS), the Earth Resources Experiment Package (EREP) of Skylab, and NASA's Aircraft Program. The Center also houses photographic laboratories and attendance facilities related to data production.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Pettinger, L.	Information Retrieval	(605) 594-6511 ext 133

**STAFF:** Full-time - professional 90, nonprofessional 260, total 350; part-time - professional 0, nonprofessional 0, total 0.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; films and slides; total number of titles 10,000.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
Landsat	Imagery & electronic data acquired by the Landsat satellites		700,000 frames
Apollo-Gemini photography			6,000 frames
Skylab imagery and photography			34,000 frames
NASA Research Aircraft Imagery			1,900,000 frames
USDI Aerial Mapping Photography			3,740,000 frames

EARTH RESOURCES OBSERVATION SYSTEMS DATA CENTER (EROS)

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** On-site use of collection; interlibrary loans; reproduction/publication services photographic products; digital tape data; courses/workshops.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfilm copy; microfiche copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## EASTERN ENVIRONMENTAL RADIATION FACILITY (EERF)

**ADDRESS:** PO Box 3009  
Montgomery, AL  
36109

**TELEPHONE:** (205) 272-3402

**DIRECTOR:** Porter, C.

**PARENT-SPONSOR-HOST AFFILIATION:** Environmental Protection Agency

**YEAR INFORMATION SOURCE BEGAN:** 1970

**MISSION:** To provide laboratory capability for evaluation and assessment of radiation sources through environmental studies and surveillance and analysis; technical assistance to the State and local health departments in their radiological health programs; and special laboratory support for EPA regional Offices and other Federal Government agencies as requested.

**SUBJECT SCOPE:** Nuclear safety; Laboratories, test facilities and test equipment; Nuclear science and technology; Isotopes; Radioactive wastes and fission products; Radioactivity.

**MAJOR SUBJECT TERMS:** Detectors; Nuclear physics; Nuclear radiation; Nuclear energy; Radioactive wastes; Nuclear power plants; Warning systems; Electromagnetic radiation; Ionizing radiation.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Porter, C. R.	Nuclear Physics	(205) 272-3402

**STAFF:** Full-time - professional 34, nonprofessional 16, total 50; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Abstracts; technical reports; statistical compilations; newsletters/trade literature; reference lists/bibliographies; standards and specifications; graphics/tabular materials.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations.

**REFERENCE AND QUERY SERVICES:** Analytical studies; advisory and consulting services; referrals.

**USER QUALIFICATIONS:** Staff or members of affiliated organizations; government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## ELECTRONIC PROPERTIES INFORMATION CENTER (EPIC)

**ADDRESS:** Center for Information and Numerical Data Analysis and Synthesis  
 Purdue University  
 2595 Yeager Road  
 West Lafayette, IN  
 47906

**TELEPHONE:** (317) 463-1581

**DIRECTOR:** Touloukian, Y. S.

**PARENT-SPONSOR-HOST AFFILIATION:** Purdue Univ.; Department of Defense; Department of Commerce

**YEAR INFORMATION SOURCE BEGAN:** 1961 at Hughes Aircraft Company and transferred to Purdue University in June 1973.

**MISSION:** To become a world center for research and the collection, analysis, correlation and dissemination of electronic, electrical, magnetic, and optical properties information; and to promote a better understanding of this subject in education, science, and industry.

**SUBJECT SCOPE:** Inorganic chemistry; Ceramics, refractories and glass; Composite materials; Coatings, colorants and finishes; Metals; Plastics; Electricity and magnetism; Optics; Solid state physics; Crystallography.

**MAJOR SUBJECT TERMS:** Electromagnetic radiation; Magnetic properties; Materials; Glass; Ceramics; Plastics; Physical properties; Electricity; Electronics.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Theoretical and Analytic research is performed. The associated Property Research Laboratory performs experimental research.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Touloukian, Y. S.	Physical Properties; Thermodynamics	(317) 463-1581
Ho, C. Y.	Physical Properties	(317) 463-1581
James, H. M.	Physics	(317) 463-1581
Li, H. H.	Physical Properties	(317) 463-1581
Chi, T. C.	Physical Properties	(317) 463-1581
Matula, R. A.	Physical Properties	(317) 463-1581
Shafer, W. H.	Physics; Information Retrieval	(317) 463-1581
Chaney, J. F.	Physics; Information Retrieval	(317) 463-1581
Koutoujian, H. K.	Information Retrieval	(317) 463-1581
Phillips, J.	Computer Programming	(317) 463-1581

**STAFF:** Full-time - professional 5, nonprofessional 4, total 9; part-time - professional 5, nonprofessional 1, total 6.

**INTERNAL PUBLICATIONS:** Books; handbooks/manuals; technical reports; statistical compilations; newsletters/trade literature; graphics/tabular materials; magnetic tape bibliographic data.

**HOLDINGS:** Abstracts/indexes; reports and reprints; total number of titles 70,000; range of years of total 1875-present.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
	Materials Directory and Synonyms	1874-present	10,000
	Technical Coding by Properties	1874-present	60,000
	Bibliographic Citations	1874-present	60,000
	Author Index	1874-present	70,000

ELECTRONIC PROPERTIES INFORMATION CENTER (EPIC)

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; state-of-the-art reviews; analytical studies; advisory and consulting services; scientific or statistical data retrieval/compilation; translations.

**OTHER SERVICES:** Interlibrary loans; reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF RADIATION PROGRAMS (ORP)

**ADDRESS:** 401 M Street, S.W.  
East Tower, Room 611  
Washington, DC  
20460

**TELEPHONE:** (202) 755-4894

**DIRECTOR:** Rowe, W.

**YEAR INFORMATION SOURCE BEGAN:** 1970

**MISSION:** Responsible for the development and enforcement of standards for protection of the public health and the quality of the environment from the adverse effects of both ionizing and nonionizing radiation exposure; the creation of technical assistance and manpower training programs; research and assessment of new activities proposed by Federal agencies and Federally controlled agencies.

**SUBJECT SCOPE:** Nuclear safety; Radiobiology; Radioactive wastes and fission products; Radioactivity; Nuclear propulsion; Isotopes.

**MAJOR SUBJECT TERMS:** Physiological hazards; Protective equipment; Ionizing radiation; X-rays; Radioactive isotopes; Radioactive wastes; Radioactive spills; Nuclear radiation; Reactor safety; Nuclear power plants; Safety regulations; Safety procedures; Inspection; Shielding; Environments; Air pollution; Radiation; Information retrieval.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Develop and evaluate radiation protection proposals, recommendations, criteria and standards designed to protect the environment, the general public, and people who may be occupationally exposed. It must also assess all new federally sponsored or regulated activities and all industrial and commercial products or processes that may result in additional radiation exposure.

**SPECIAL SCOPE FEATURES:** The Office is also responsible for providing technical assistance to States and other agencies having radiation protection requirements, establishing and directing a national surveillance program for measuring radiation levels in the environment, evaluating and assessing the impact of new and developing radiation technology on man and the environment and assisting in the training of personnel for radiation protection programs.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Martin, J.	Radiation	(202) 755-4871
Sibbison, J.	Information Retrieval	(202) 755-0344

**STAFF:** Full-time - professional 50, nonprofessional 50, total 100; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; periodicals/journals; newsletters/trade literature; standards and specifications.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## FEDERAL AVIATION ADMINISTRATION, OFFICE OF AVIATION MEDICINE

**ADDRESS:** Federal Aviation Administration  
800 Independence Ave. S.W.  
Washington, DC  
20591

**TELEPHONE:** (202) 426-3535

**DIRECTOR:** Reighard, H. L., M.D.

**YEAR INFORMATION SOURCE BEGAN:** 1926

**MISSION:** To provide medical certification of civil airmen and conduct air safety medical research.

**SUBJECT SCOPE:** Clinical medicine; Escape, rescue and survival; Laboratories, test facilities and test equipment; Research; Protective equipment; Bioengineering; Man-machine hazards.

**MAJOR SUBJECT TERMS:** Medicine; Physiology; Human factors engineering; Protective equipment; Survival; Extraterrestrial environments; Aircraft safety; Escape systems; Air traffic control; Civil aviation; Fabrication; Structural engineering; Structural materials; Aerospace medicine.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Contract R&D medical research and program guidance to in-house medical research.

**SPECIAL SCOPE FEATURES:** The Office of Aviation Medicine specifically concentrates on safety aspects of flight, including pilot certification from the medical standpoint and crash survivability for aircraft occupants. The research covers physical standards for airmen, protection and survival of occupants in aircraft from crash forces and also inflight environmental extremes. In addition, the research covers bioengineering aspects of man machine interrelationships. Research on air traffic controller health is also a major consideration.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Reighard, H. L.	Medicine; Aerospace Medicine	(202) 426-3535
Haynes, H.	Psychiatry	(202) 426-3535
Packull, B.	Psychiatry	(202) 426-3535

**STAFF:** Full-time - professional 16, nonprofessional 35, total 51; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Books; abstracts; technical reports; newsletters/trade literature; reference lists/bibliographies.

**HOLDINGS:** Books; abstracts/indexes; reference lists/bibliographies.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
Civil Airmen Data Storage	Health of Civil Airmen	1926-	750,000

**REFERENCE AND QUERY SERVICES:** Questions answered individually; advisory and consulting services; referrals.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Not available.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## FEDERAL HIGHWAY ADMINISTRATION (FHWA)

**ADDRESS:**

Washington, DC  
20590

**TELEPHONE:** (703) 557-5257

**DIRECTOR:** Scheffey, C. F.

**PARENT-SPONSOR-HOST AFFILIATION:** Department of Transportation

**YEAR INFORMATION SOURCE BEGAN:** 1970

**MISSION:** To provide leadership and programs for developing a highway transportation system that effectively satisfies national, regional, and local needs. This mission involves not only finding solutions to unresolved issues associated with present day highway technology, but also includes developing the technology base from which future highway systems can be built or obtained from modifications to existing systems, which are safer, more efficient, and less costly. Always a continuing concern is enhanced compatibility with the social and environmental goals of society and improved balance with other modes of transportation.

**SUBJECT SCOPE:** Safety analysis.

**MAJOR SUBJECT TERMS:** Highway safety; Vehicles (land); Safety analysis; Transportation; Accident prevention.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** The Office of Research conducts research programs in search for new techniques and products related to highway technology, while the Office of Development conducts the development and implementation activities needed to disseminate new techniques and products to the highway profession.

**SPECIAL SCOPE FEATURES:** The safety program is concerned with reducing the frequency and severity of accidents associated with skidding and loss of vehicle control, particularly on wet pavements. It is directed toward improvements in the construction and maintenance of skid resistant pavement surfaces; detection of sites which have a high potential for skidding; determining means for alerting vehicle operators to hazardous conditions; and the development of procedures, equipment and facilities for standardizing skid measurements.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Balmer, G. G.	Highway Safety	(703) 557-5275
Hegmon, R. R.	Mechanical Engineering	(703) 557-5275
Niessner, C. W.	Highway Safety	(202) 426-9217
Pilkington, II, G. B.	Highway Safety	(202) 426-9710
Rice, J. M.	Highway Safety	(703) 557-5211
Smith, R. W.	Highway Safety	(703) 557-5211

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides.

**USER QUALIFICATIONS:** General technology community; staff or members of affiliated organizations; government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## FOOD AND DRUG ADMINISTRATION, POISON CONTROL PROGRAM

**ADDRESS:** Food and Drug Administration  
5401 Westbard Avenue  
Bethesda, MD  
20016

**TELEPHONE:** (301) 496-7691

**DIRECTOR:** Crotty, J. J.

**YEAR INFORMATION SOURCE BEGAN:** 1957

**MISSION:** To supply poison control centers with information on the potential hazards, symptoms, and treatment of ingestion of common chemical products.

**SUBJECT SCOPE:** Dangerous materials; Toxicology.

**MAJOR SUBJECT TERMS:** Consumer protection; Toxicity; Hazardous materials; Chemical hazards; Information retrieval; Accidents.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** The program obtains information from industry, journals, textbooks, and other sources on formulation, toxicity symptomatology and treatment of household products and medicine for use in case of accidental poisoning. Evaluation and selective dissemination of this material is also within the scope of the program.

**SPECIAL SCOPE FEATURES:** The centers provide for the medical profession, on a 24-hour basis, information concerning the prevention and treatment of accidents involving ingestion of poisonous and potentially poisonous substances.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Verhulst, H. L.	Poison Control	(301) 496-7691

**STAFF:** Full-time - professional 6, nonprofessional 7, total 13; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Newsletters/trade literature; reference lists/bibliographies.

**HOLDINGS:** Reports and reprints; standards and specifications.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; analytical studies; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Interlibrary loans.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** Staff or members of affiliated organizations.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** All services free to qualified users.

DECEMBER 1975

## FOREST FIRE INFORMATION PROJECT (FIREBASE)

**ADDRESS:** Northern Forest Fire Laboratory  
Drawer G  
Missoula, MT  
59801

**TELEPHONE:** (406) 329-3501

**DIRECTOR:** Taylor, A. R.

**PARENT-SPONSOR-HOST AFFILIATION:** Department of Agriculture Forest Service

**YEAR INFORMATION SOURCE BEGAN:** 1975

**MISSION:** To provide land managers, fire scientists, and interested laymen with up-to-date digests of published and unpublished documents relating to wildland fire management and effects.

**SUBJECT SCOPE:** Fire, explosion and detonations; Wood and paper products; Environmental biology.

**MAJOR SUBJECT TERMS:** Fire prevention; Fires; Fire fighting; Fire extinguishing agents; Fire hazards; Environments; Personnel development; Fire fighting equipment; Forest fires.

**SPECIAL SCOPE FEATURES:** The Firebase data base specializes in wildlife fire information, both published and unpublished, including forest, range, shrubland and grassland fire but does not specialize in structural or chemical fire information except as it relates to wildlife fire. Some structural fire information relating to the wildlife-suburban interface is included. The firebase data base does specialize in fire and forest-range fuel fundamental combustion, pyrolysis and ignition characteristics.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Taylor, A. R.	Forest Fires; Information Retrieval	(406) 329-3501

**STAFF:** Full-time - professional 3, nonprofessional 2, total 5; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Indexes; newsletters/trade literature; reference lists/bibliographies.

**HOLDINGS:** Abstracts/indexes; total number of titles 3,100; range of years of total 1910.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
FIREBASE	Forests Fire Digests	1910	3,500

**REFERENCE AND QUERY SERVICES:** Retrospective searches.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Microfiche copy (some).

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## FRANKLIN-HAHNEMANN INST. (FHI)

**ADDRESS:** Schaff Building  
1505 Race Street  
Philadelphia, PA  
19102

**TELEPHONE:** (215) 448-8656

**DIRECTOR:** Herrick, R.

**PARENT-SPONSOR-HOST AFFILIATION:** Franklin Institute; Hahnemann Medical College & Hosp.; Health Service Plan of Pennsylvania

**YEAR INFORMATION SOURCE BEGAN:** 1973

**MISSION:** The FHI was created to evaluate, maintain and monitor the potential hazards of materials and processes, and the safety of workers in an industrial environment. It is also committed to the design and implementation of safety programs and efficient health care delivery in industry with emphasis on preventive medicine.

**SUBJECT SCOPE:** Man-machine hazards; Operations research; Safety analysis; Hygiene and sanitation; Biological and medical sciences; Behavioral and social sciences.

**MAJOR SUBJECT TERMS:** Industrial hygiene; Industrial safety; Environments; Safety engineering; Hazardous materials; Physiological hazards; Information retrieval; Safety analysis; Human factors engineering; Physiology.

**SPECIAL SCOPE FEATURES:** Ability to provide facilities for research and development in the following areas: management, information, continuing education and engineering. Consultation services in all aspects of occupational health.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Herrick, R. E.	Medicine	(215) 448-1155
Wendt, F. W.	Life Sciences	(215) 448-1155
Spencer, H. N.	Orthopedics	(215) 448-1155

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Conferences/symposiums.

**USER QUALIFICATIONS:** General technology community; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## GARBELL RESEARCH FOUNDATION

**ADDRESS:** 1714 Lake Street  
San Francisco, CA  
94121

**TELEPHONE:** (415) 752-0871

**DIRECTOR:** Garbell, M. A.

**PARENT-SPONSOR-HOST AFFILIATION:** M.A.G. Consultants, Inc.

**YEAR INFORMATION SOURCE BEGAN:** 1948

**MISSION:** To furnish the US Government, the aerospace industry, other public bodies, and the general public, with technical information, conclusions and recommendations on aeronautical safety problems. To identify areas where safety problems, technological and operational uncertainties, and regulatory deficiencies exist, relative to the operation of aircraft and airports, land-use restrictions in areas adjacent to airports, and to initiate research programs both in-house and under contract in these problem areas.

**SUBJECT SCOPE:** Aircraft problems; Air facilities; Meteorology; Aeronautics; Aircraft flight instrumentation; Safety engineering; Thermodynamics; Safety analysis; Acoustics.

**MAJOR SUBJECT TERMS:** Accident investigation; Safety engineering; Safety analysis; Safety procedures; Safety equipment; Detectors; Acoustics; Acceleration; Thermodynamics; Flight control; Flight instruments; Flight paths; Meteorology; Human factors engineering; Aircraft safety; Aircraft problems; Civil aviation; Aeronautics; Airports.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Safety-related research and studies performed in San Francisco offices, and in-flight evaluations with the co-operation of major trunk-airlines and intra-State airlines operators. Technical staff provides consultative assistance to cities, county airport land use commissions, and developers throughout the United States in matters of safety-compatible operation and land-use planning.

**SPECIAL SCOPE FEATURES:** Principal expertise is in the combined fields of aerodynamics, aeronautical engineering, aircraft performance engineering, meteorology and noise aspects which relate to aircraft safety and the safety on land uses near airports. Leading exponent in safety evaluation of the aerodynamic and pilot-technique aspects of major aircraft accidents.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Garbell, M. A.	Aerospace Engineering	(415) 752-0871

**STAFF:** Full-time - professional 2, nonprofessional 1, total 3; part-time - professional 1, nonprofessional 4, total 5.

**INTERNAL PUBLICATIONS:** Technical reports.

**HOLDINGS:** Books; reports and reprints; periodicals; standards and specifications; total number of titles over 6,000.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; state-of-the-art reviews; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation; translations.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; government employees; government contractors.

**USER RESTRICTIONS:** None; federal security clearance (classified material).

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## GENERAL ELECTRIC CO., HIGH VOLTAGE LABORATORY (HVL)

**ADDRESS:** 100 Woodlawn Avenue  
Pittsfield, MA  
01201

**TELEPHONE:** (413) 494-3575

**DIRECTOR:** Plumer, A. J.

**MISSION:** The High Voltage Laboratory supports both industry's and government's development of power transmission equipment by conducting research in the fields of natural lightning, high voltage and high current phenomena. The Environmental Electromagnetics Unit, formed in 1972, applies lightning research and effects and related high voltage and high current pulse technology including nuclear electromagnetic pulse effects to the needs of government and industry.

**SUBJECT SCOPE:** Safety analysis; Aircraft; Atmospheric physics; (Electrical) components; Electronic and electrical engineering; (Electrical) subsystems; Safety engineering; Laboratories, test facilities and test equipment; Electricity and magnetism.

**MAJOR SUBJECT TERMS:** Safety engineering; Safety equipment; Shielding; Safety analysis; Safety procedures; Industrial safety; Range safety; Safety engineering; Electricity; Physical properties; Lightning; Atmospheres; Aircraft safety; Fabrication; Aerospace engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Lightning protection, lightning instrumentation, evaluation of lightning protection systems, nuclear electromagnetic pulse protection design, and the effects of high intensity electrical currents are the areas of current research.

**SPECIAL SCOPE FEATURES:** Laboratory capabilities include the following: Laboratory simulation of the natural effects of lightning, man-made transients, static electricity and NEMP; Analytical studies by analog or digital modeling techniques where laboratory evaluations are impractical or uneconomical; field measurements of natural phenomena.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Plumer, A. J.	Lightning	(413) 494-3575
Fisher, F. A.	Electromagnetism	(413) 494-4380
Crouch, K. E.	Nuclear Physics	(413) 494-3531
Maxwell, K. J.	Physics	(413) 494-3531
Walko, L. C.	Lightning	(413) 494-3531

**STAFF:** Full-time - professional 26, nonprofessional 4, total 30; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; statistical compilations; newsletters/trade literature; conference papers; standards and specifications.

**REFERENCE AND QUERY SERVICES:** Selective dissemination of information; analytical studies; advisory and consulting services; scientific or statistical data retrieval/compilation.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; government contractors.

**USER RESTRICTIONS:** Industrial/corporate security clearance.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

GEORGE WASHINGTON UNIV., SCHOOL OF ENGINEERING AND APPLIED SCIENCE

ADDRESS: School of Engineering and Applied Science  
The George Washington University  
Washington, DC  
20052

TELEPHONE: (202) 676-6106

DIRECTOR: Mansfield, J. E.

YEAR INFORMATION SOURCE BEGAN: 1969

MISSION: To enhance the competence of practicing engineers through state-of-the-art information in such fields as mathematical methods in decision-making or modelling.

SUBJECT SCOPE: Mathematics and statistics; Reliability; Human factors engineering; Safety engineering; Operations research.

MAJOR SUBJECT TERMS: Safety engineering; Operations research; Accidents; Human factors engineering; Reliability; Failure.

RESEARCH AND DEVELOPMENT ACTIVITIES: R & D in statistical methods for reliability and system safety engineering.

SPECIAL SCOPE FEATURES: System Safety and System Safety Applications, Workshop in System Safety and Introduction to Fault Tree Analysis.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Grosse, V. L.	Systems Engineering	(202) 676-6106
Singpurwalla, N. D.	Reliability	(202) 676-7515

STAFF: Full-time - professional 7, nonprofessional 4, total 11; part-time - professional 0, nonprofessional 20, total 20.

INTERNAL PUBLICATIONS: Conference papers.

HOLDINGS: Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides.

REFERENCE AND QUERY SERVICES: Questions answered individually; selective dissemination of information; analytical studies; referrals.

OTHER SERVICES: On-site use of collection; courses/workshops; conferences/symposiums.

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Hard copy.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: Charge for some services to qualified users.

DECEMBER 1975

## GEORGIA INST. OF TECHNOLOGY, ENGINEERING EXPERIMENT STATION

**ADDRESS:** Georgia Institute of Technology  
Atlanta, GA  
30332

**TELEPHONE:** (404) 894-3401

**DIRECTOR:** Long, M. W.

**YEAR INFORMATION SOURCE BEGAN:** 1919

**MISSION:** To promote the general welfare of the people of Georgia through scientific engineering and industrial research. To provide technical advice and assistance to business and industry. To encourage more complete development and utilization of the natural resources of Georgia. To assist national programs of science, technology and preparedness.

**SUBJECT SCOPE:** Meteorology; Hygiene and sanitation; Environmental biology; Bioengineering; Electronic and electrical engineering; Power sources; Materials; Laboratories, test facilities and test equipment; Research; Crystallography; Physics; Electricity and magnetism.

**MAJOR SUBJECT TERMS:** Materials; Materials tests; Test equipment; Mechanical properties; High strength alloys; Nondestructive evaluation; Failure; Materials; Acoustics; Physical properties; Electromagnetic radiation; Telecommunications; Radar; Environments; Atmospheres; Life sciences; Earth sciences.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Research and development in most areas of engineering. Relevant current projects include: remote sensing analysis, waste and fuel research and fracture mechanics.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Dean, H. G.	Information Retrieval	(404) 894-3492
Harrison, G. R.	Nuclear Physics; Physics; Life Sciences	(404) 894-3414
Brown, J. L.	Instruments	(404) 894-3460
Poulds, N.	High Temperature	(404) 894-3430
Robertson, D. W.	Telecommunications	(404) 894-3542
Ecker, H. A.	Radar	(404) 894-3523
Goodman, R. M.	Sensors	(404) 894-3507

**STAFF:** Full-time - professional 175, nonprofessional 116, total 291; part-time - professional 0, nonprofessional 181, total 181.

**INTERNAL PUBLICATIONS:** Technical reports.

**HOLDINGS:** Books; reports and reprints; periodicals; total number of titles 1,000,000.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; analytical studies; advisory and consulting services; referrals; bibliographic abstracts; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfiche copy.

**USER QUALIFICATIONS:** General technology community; staff or members of affiliated organizations; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## GOVERNMENT-INDUSTRY DATA EXCHANGE PROGRAM (GIDEP)

**ADDRESS:** US Navy FMSAEG  
GIDEP Operations Center  
Code 8033  
Corona, CA  
91720

**TELEPHONE:** (714) 736-4677

**DIRECTOR:** Richards, E.

**PARENT-SPONSOR-HOST AFFILIATION:** Dept. of Defense; NASA

**YEAR INFORMATION SOURCE BEGAN:** 1960

**MISSION:** Provides for exchange of reliability, quality engineering, safety and test equipment related data on parts components and materials, for use by government and industry organizations. The program also provides two communication services: the Alert Data System to identify defective items and safety related problems; and the Urgent Data Request (UDR) Data System for obtaining specialized data from program participants.

**SUBJECT SCOPE:** Reliability; All ASRDI categories.

**MAJOR SUBJECT TERMS:** Reliability; Information retrieval; Maintenance; Quality control; Research and development; Aeronautics; Electronics; Materials; Civil engineering; Mechanical engineering; Test equipment; Missiles; Navigation aids; Nuclear physics; Nuclear engineering; Propulsion; Engines; Fuels; Aerospace engineering.

**SPECIAL SCOPE FEATURES:** Services are primarily for government agencies, their contractors, consultant organizations and educational institutions, and are provided to others who qualify. Requirements for participants in the Program are based on the reciprocal exchange of data and the ability to provide an internal program operation to include at least one representative, a microfilm reader-printer and adequate working area within the facility.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Richards, E.	Reliability	(714) 736-4677

**STAFF:** Full-time - professional 6, nonprofessional 1, total 7; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; abstracts; indexes; technical reports; statistical compilations; conference papers; standards and specifications; magnetic tape bibliographic data.

**HOLDINGS:** Abstracts/indexes; reports and reprints; reference lists/bibliographies; standards and specifications; statistical compilations; films and slides; total number of titles 90,000; range of years of total 1960.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
Engineering (EDB)	Technical Reports, Engineering Data	1960	45,000
Metrology (MDB)	Metrology Related Data, Procedures, Calibration	1968	15,000
Failure experience (ALERT)	Parts, Materials, and Safety Problems	1968	1500
Urgent data request (UDR)	Data Query for Engineering Specialists	1968	150 per year
Failure rate (FRDB)	Field Operational Reliability Experience Data	1962	50,000

GOVERNMENT-INDUSTRY DATA EXCHANGE PROGRAM (GIDEP)

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; referrals; scientific or statistical data retrieval/compilation; custom abstracting and indexing services.

**OTHER SERVICES:** On-site use of collection; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfilm copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; staff or members of affiliated organizations; government employees; government contractors.

**USER RESTRICTIONS:**

**PRICING AND SERVICES CHARGES:** All services free to qualified users.

DECEMBER 1975

GOVERNMENT RESEARCH LABORATORY (GRL)

ADDRESS: P.O. Box 8  
Linden, NJ  
07036

TELEPHONE: (201) 474-0100

DIRECTOR: Berger, M.

PARENT-SPONSOR-HOST AFFILIATION: Exxon Research and Engineering Company

YEAR INFORMATION SOURCE BEGAN: 1965

MISSION: Gather, process and analyze information according to the requirements, specifications and criteria of the user.

SUBJECT SCOPE: Lasers; Combustion and ignition; Nonpropulsive energy conversion; Fuels.

MAJOR SUBJECT TERMS: Fuels; Combustion; Energy; Solar radiation; Lasers; Fire protection; Fire prevention.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Nixon, J.	Fire Protection; Fire Prevention	(202) 833-8100

PRICING AND SERVICES CHARGES: Charge for some services to qualified users; negotiated contracts on major inquiries.

DECEMBER 1975

## HAZARDS RESEARCH CORPORATION (HRC)

**ADDRESS:**

Denville, NJ  
07834

**TELEPHONE:** (201) 627-4560

**DIRECTOR:** Grelecki, C. J.

**YEAR INFORMATION SOURCE BEGAN:** 1969

**MISSION:** To provide expert technical consultation, laboratory and field test services to commercial and government agencies faced with problems in chemical fire and explosion hazards. The organization has also developed capabilities in transportation hazards evaluation, in-plant seminars on fire and explosion hazards evaluation, accident investigation and hazardous waste disposal.

**SUBJECT SCOPE:** Safety analysis; Dangerous materials; Fire, explosion and detonations; Chemical hazards.

**MAJOR SUBJECT TERMS:** Hazardous materials; Chemical engineering; Personnel development; Toxicity; Transportation; Energy; Combustion; Propellants; Fuels; Sanitation; Test equipment; Accident investigations; Safety engineering; Operations research; Safety analysis; Safety equipment; Explosions; Pyrotechnics; Deflagration; Fire hazards; Waste disposal.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Investigation in shock sensitivity and detonability, thermal explosion, autoignition, vapor flames, gases, mists and dusts. Also evaluating the fire and explosion hazards inherent in chemical process mixtures, processing equipment and products, including propellants, explosives and pyrotechnics.

**SPECIAL SCOPE FEATURES:** Professional chemical-engineering services available include: process review, laboratory and pilot plant experiments, design engineering and field services. Services in combustible and/or toxic gases include: problem definition, atmosphere monitoring, and corrective counseling. Continuing education services are also available.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Grelecki, C.	Fire Hazards; Explosions	(201) 627-4560
Cruice, W. J.	Education	(201) 627-4560
Tunkel, S. J.	Chemical Engineering	(201) 627-4560
Petino, G.	Mechanical Engineering; Explosives	(201) 627-4560

**STAFF:** Full-time - professional 7, nonprofessional 3, total 10; part-time - professional 1, nonprofessional 1, total 2.

**INTERNAL PUBLICATIONS:** Newsletters/trade literature.

**HOLDINGS:** Reports and reprints; periodicals.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; government contractors.

**USER RESTRICTIONS:** Federal security clearance.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## IIT RESEARCH INST. (IITRI)

**ADDRESS:** 10 West 35th Street  
Chicago, IL  
60616

**TELEPHONE:** (312) 567-4000

**DIRECTOR:** Schulz, E. H.

**PARENT-SPONSOR-HOST AFFILIATION:** Illinois Institute of Technology

**YEAR INFORMATION SOURCE BEGAN:** 1936

**MISSION:** Serves industry and government as a contract research organization. Activities encompass nearly all of the physical sciences and their related techniques.

**SUBJECT SCOPE:** Reliability; Ammunition, explosives and pyrotechnics; Fire, explosion and detonation; Safety analysis; Propulsion, engines and fuels; Aircraft problems; Air facilities; Mathematical sciences; Human factors engineering; Operations research; Safety engineering; Laboratories, test facilities and test equipment.

**MAJOR SUBJECT TERMS:** Aerospace medicine; Transportation; Vehicles (land); Highway safety; Nondestructive evaluation; Test equipment; Explosives; Propellants; Engines; Fires; Fire resistant materials; Fire fighting; Fire hazards; Reliability; Operations research; Maintenance; Structural materials; Aircraft safety; Air traffic control; Materials.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Performs research in a variety of technical areas including metals, chemistry and chemical engineering, mechanics of materials, electronics, engineering mechanics and medical engineering, and life sciences.

**SPECIAL SCOPE FEATURES:** IITRI maintains well-equipped laboratories for conducting fire research at full scale or with models, and for experimental research in heat and mass transfer, combustion, and related subjects, including analytical and experimental modeling of fire phenomena, full-scale fire tests, fire hazards of combustible building materials, smoke abatement methods, development and evaluation of combustion characterization tests, and heat transfer research and development. Radiant Source facility is also available. Other areas include human factors engineering, hazards analysis, systems safety, and fault tree analysis.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Longinow, A.	Structural Failure	(312) 567-4805
Wakeley, H.	Human Factors Engineering	(312) 567-4757
Cornish, R.	Structural Materials	(312) 567-4011
Klein, M.	Propellants; Fuels	(312) 567-4300
Waterman, T.	Fires	(312) 567-4784
Napadensky, A.	Safety Analysis	(312) 567-4782
Brueschke, E.	Aerospace Medicine	(312) 567-4925
Jones, L.	Standards	(312) 567-4793
Bridges, J.	Microwaves; Lasers; Thermal Radiation; Ultraviolet Radiation	(312) 567-4488

**STAFF:** Full-time - professional 80, nonprofessional 20, total 100; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Periodicals/journals.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides.

## IIT RESEARCH INST. (IITRI)

## DATA BANK RESOURCES:

Name or Acronym	Description of Contents	Range of Years	No. of Records
--	Comprehensive Science and Technology Bibliographic Data Base	1968-	300,000-400,000

REFERENCE AND QUERY SERVICES: Analytical studies; advisory and consulting services.

OTHER SERVICES: On-site use of collection.

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Not available.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: Charge to all users for all services.

DECEMBER 1975

INDIANA UNIVERSITY, PHYSIOLOGY DEPARTMENT

ADDRESS: Meyers Hall  
Indiana University School of Medicine  
Bloomington, IN  
47401

TELEPHONE: (812) 337-5888 ext 3115

DIRECTOR: Elizondo, R. S.

YEAR INFORMATION SOURCE BEGAN: 1960

MISSION: To define and quantify the physiological changes associated with man's adaptation to environmental stress.

SUBJECT SCOPE: Physiology; Stress physiology; Biochemistry; Man-machine hazards.

MAJOR SUBJECT TERMS: Physiology; Physiological hazards.

RESEARCH AND DEVELOPMENT ACTIVITIES: Research interests include comparative thermoregulation, physiology and biochemistry of eccrine sweat gland function, and comparative renal physiology and water balance.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Elizondo, R. S.	Physiology	(812) 337-5888 ext 3115

STAFF: Full-time - professional 3, nonprofessional 2, total 5; part-time - professional 0, nonprofessional 3, total 3.

INTERNAL PUBLICATIONS: Abstracts; technical reports; periodicals/journals.

HOLDINGS: Books; reports and reprints; periodicals; reference lists/bibliographies; total number of titles 1,500; range of years of total 50 years.

REFERENCE AND QUERY SERVICES: Questions answered individually; advisory and consulting services.

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Hard copy.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: All services free to qualified users.

DECEMBER 1975

INDUSTRIAL RISK INSURERS

ADDRESS: 85 Woodland Street  
Hartford, CT  
06102

TELEPHONE: (203) 525-2601

DIRECTOR: Powers, F. C.

YEAR INFORMATION SOURCE BEGAN: 1890

MISSION: To provide advisory engineering services for the control of losses resulting from fire, leakage from fire-protective equipm, lightning, wind and hail, explosion, smoke, aircraft and vehicles, sonic boom, riot, civil commotion and vandalism, and molten material in industrial properties. The Industrial Risk Insurers is a consolidation of the former Factory Insurance and Oil Insurance Associations.

SUBJECT SCOPE: Fire, explosion and detonations; Dangerous materials; Nuclear safety.

MAJOR SUBJECT TERMS: Safety engineering; Explosions; Fire prevention; Fire resistant materials; Fire hazards; Explosives; Combustion; Hazardous materials; Fires; Fabrication; Structural materials; Reactor safety; Fire insurance.

RESEARCH AND DEVELOPMENT ACTIVITIES: Conducts investigations of performance characteristics of methods and materials used in the control of industrial property-damage hazards.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Barritt, J. S.	Fire Protection; Fire Insurance	(203) 525-2601, ext. 250

STAFF: Full-time - professional 500, nonprofessional 100, total 600; part-time - professional 0, nonprofessional 0, total 0.

INTERNAL PUBLICATIONS: Handbooks/manuals; indexes; periodicals/journals; newsletters/trade literature.

HOLDINGS: Books; reports and reprints; periodicals; standards and specifications; statistical compilations; films and slides.

REFERENCE AND QUERY SERVICES: Questions answered individually; state-of-the-art reviews; advisory and consulting services.

OTHER SERVICES: Courses/workshops.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: All services free to qualified users.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## INSTITUTE OF FRACTURE AND SOLID MECHANICS

**ADDRESS:** Institute of Fracture and Solid Mechanics  
 Packard Laboratory  
 Lehigh University  
 Bethlehem, PA  
 18015

**TELEPHONE:** (215) 691-700 ext. 376

**DIRECTOR:** Sih, G. C.

**PARENT-SPONSOR-HOST AFFILIATION:** Lehigh University

**YEAR INFORMATION SOURCE BEGAN:** 1970

**MISSION:** To coordinate and promote interdisciplinary research and education among Lehigh engineers and scientists working in areas that utilize the concepts of fracture and solid mechanics.

**SUBJECT SCOPE:** Mechanics of structural failure; Structural materials limitations; Metals; Composite materials; Mathematics and statistics; Structural engineering; Mechanics.

**MAJOR SUBJECT TERMS:** Mechanical engineering; Structural engineering; Structural failure; Fatigue (materials); Materials tests; Mechanical properties; Physical properties; Fracture mechanics.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Current research areas include: Analytical Fracture Mechanics, Experimental Fracture Mechanics, Analytical and Numerical Methods in Solid Mechanics, and Plates and Shells.

**SPECIAL SCOPE FEATURES:** The institute conducts a Fracture and Solid Mechanics Liaison Program with private industries and with governmental agencies. This program allows participants to make use of the personnel of the institute through consultation with faculty members and summer employment of graduate students. The institute will also conduct materials testing programs in its laboratories. In addition to various fracture toughness tests, photoelastic analysis of two-and-three dimensional stress distributions can be arranged.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Chen, T. E. P.	Mechanical Engineering; Fracture Mechanics	(215) 691-7000 ext. 792
Fang, H. Y.	Civil Engineering	(215) 691-7000 ext. 2250
Manson, J. A.	Chemistry	(215) 691-7000 ext. 2295
Hasselman, D. P. H.	Metallurgy	(215) 691-7000 ext. 681
Wei, K. P.	Mechanical Engineering; Fracture Mechanics	(215) 691-7000 ext. 2296
Erdogan, F.	Mechanical Engineering; Fracture Mechanics	(215) 691-7000 ext. 495

**STAFF:** Full-time - professional 17, nonprofessional 3, total 20; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Books; handbooks/manuals; technical reports; periodicals/journals; conference papers.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides; total number of titles 50,000.

**REFERENCE AND QUERY SERVICES:** Questions answered individually.

**OTHER SERVICES:** Reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

## INSTITUTE OF GAS TECHNOLOGY (IGT)

**ADDRESS:** 3424 South State Street  
IIT Center  
Chicago, IL  
60616

**TELEPHONE:** (312) 225-9600

**DIRECTOR:** Linden, H. R.

**PARENT-SPONSOR-HOST AFFILIATION:** Illinois Institute of Technology

**MISSION:** The Institute of Gas Technology is an educational and research organization sponsored and supported by the gas industry for the purposes of full time research and educational and support services.

**SUBJECT SCOPE:** Industrial safety manuals, codes, specifications, standards; Nonpropulsive energy conversion; Power sources; Energy storage; Air conditioning, heating, lighting and ventilation; Missile technology; Cryogenic safety.

**MAJOR SUBJECT TERMS:** Industrial safety; Safety procedures; Compressed gas; Liquified gases; Cryogenic fluid safety; Gas detectors; Hazardous materials; Methane; Hydrogen; Oxygen; Personnel development; Shipping regulations; Energy; Fuels; Combustion; Fire prevention; Information retrieval.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Sponsored and in-house research conducted in 1974 include the following projects: Conversion of Waste Materials to Methane; Fundamental Studies of Fluidized-bed Combustion; Odorization of LNG; Vapor-liquid equilibria in Cryogenic Systems; Control of emissions from combustion and gasification processes.

**SPECIAL SCOPE FEATURES:** IGT provides a full range of educational services including programs leading to doctorate and masters degrees and off-campus presentations of courses. Users may also have use of MASTIR, an IGT service that provides fast access to a central repository of world wide information of interest to the gas industry.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Gregory, D. P.	Hydrogen	(312) 225-9600 ext 638
Pangborn, J. B.	Hydrogen	(312) 225-9600 ext 653
Mensch, H. L.	Information Retrieval	(312) 225-9600 ext 626
Waterman, W. W.	Education	(312) 225-9600 ext 604

**STAFF:** Full-time - professional 167, nonprofessional 186, total 353; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Abstracts; technical reports; periodicals/journals; newsletters/trade literature; conference papers.

**HOLDINGS:** Books; reports and reprints.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
TERMATREX	Gas technology, research and education information		

**REFERENCE AND QUERY SERVICES:** Retrospective searches; selective dissemination of information; prior art/patent searches; analytical studies; advisory and consulting services; bibliographic abstracts.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfilm copy.

**USER QUALIFICATIONS:** General technology community; government employees; government contractors.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## INSTITUTE OF SAFETY AND SYSTEMS MANAGEMENT, RESEARCH CENTER

**ADDRESS:** Institute of Safety and Systems Management  
 University of Southern California  
 University Park  
 Los Angeles, CA  
 90007

**TELEPHONE:** (213) 746-5395

**DIRECTOR:** Bernberg, P. E.

**PARENT-SPONSOR-HOST AFFILIATION:** Univ. of Southern California

**YEAR INFORMATION SOURCE BEGAN:** 1970

**MISSION:** To provide the ways in which the faculty may focus on the areas of transportation safety, transportation systems analysis, transportation-public acceptance and transportation-advanced concepts; to place particular emphasis on the development of faculty, facilities and support in the area of Traffic Safety Research, Education and Training and Information Services.

**SUBJECT SCOPE:** Safety analysis; Human factors engineering; Ground transportation equipment; Dangerous materials.

**MAJOR SUBJECT TERMS:** Transportation; Human factors engineering; Highway safety; Vehicles (land); Tests; Safety analysis; Hazardous materials.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Performs contracted and selected research in transportation safety and human factors related fields and translate findings into seminars, symposia, short-courses and academic education and training wherever feasible, employing multidisciplinary and interdisciplinary approaches.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Baird, J. D.	Transportation; Safety Procedures	(213) 746-7920
Stapp, J. P., M.D.	Human Factors Engineering; Human Performance	(213) 746-7958
Small, A. M., Ph.D.	Human Factors Engineering	(213) 746-7958
Jones, M. H.	Tests; Information Retrieval	(213) 746-7958
Philipson, L. L.	Safety Analysis	(213) 746-7894
Hurt, H. H., Jr.	Highway Safety	(213) 746-2514

**STAFF:** Full-time - professional 26, nonprofessional 4, total 30; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; statistical compilations; periodicals/journals; newsletters/trade literature; conference papers; reference lists/bibliographies.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; graphics/tables; films and slides and video tapes.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
NTSB	U.S. Civil Aircraft Accident Data	1961-	approx. 50,000
BMSC	All Federally regulated interstate trucks in accidents over \$2500 per accident	1973	31,121 accidents
BMCS	All Federally regulated interstate trucks in accidents over \$2500 per accident	1966-69, 71, 72	283,000
CPIR	All Federally regulated interstate trucks in accidents over \$2500 per accident	Rev 2 & 3	16
TUC	All Federally regulated interstate trucks in accidents over \$2500 per accident		993
Dade Co., Fla	All Federally regulated interstate trucks in accidents over \$2500 per accident	1970-73	42,200

## INSTITUTE OF SAFETY AND SYSTEMS MANAGEMENT, RESEARCH CENTER

## DATA BANK RESOURCES:

Name or Agency	Description of Contents	Range of Years	No. of Records
Denver Co., Colo.	All Federally regulated interstate trucks in accidents over \$2500 per accident	1969-73	28,800
Indiana Turnpike	All Federally regulated interstate trucks in accidents over \$2500 per accident	1966-70	1,709
King, Co., Wash.	All Federally regulated interstate trucks in accidents over \$2500 per accident	1970-73	29,100
Washington Fatal	All Federally regulated interstate trucks in accidents over \$2500 per accident	1970-72	915
Michigan Fatal	All Federally regulated interstate trucks in accidents over \$2500 per accident	1970-73	1,590
Texas-Bexar Co.	All Federally regulated interstate trucks in accidents over \$2500 per accident	1969-74	35,900
New York Level 1	All Federally regulated interstate trucks in accidents over \$2500 per accident	1970	2,946
Pennsylvania	All Federally regulated interstate trucks in accidents over \$2500 per accident	1968	4,601
New York Level 2	All Federally regulated interstate trucks in accidents over \$2500 per accident	1970-73	6,100
Ohio Turnpike	All Federally regulated interstate trucks in accidents over \$2500 per accident	1966-70	2,093
Oakland Co.	All Federally regulated interstate trucks in accidents over \$2500 per accident	1968-73	26,730
Texas-5% Sample	All Federally regulated interstate trucks in accidents over \$2500 per accident	1969-74	34,400
Texas-Fatal	All Federally regulated interstate trucks in accidents over \$2500 per accident	1969-74	6,360
Texas-Truck	All Federally regulated interstate trucks in accidents over \$2500 per accident	1969-74	59,000

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Reproduction/publication services; courses/workshops; conferences/symposiums.

**USER QUALIFICATIONS:** General technology community and educational institutions; government contractors and agencies.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## INSTITUTE OF SAFETY AND SYSTEMS MANAGEMENT, SAFETY CENTER

**ADDRESS:** The Safety Center  
 Institute of Safety and Systems Management  
 University of Southern California  
 Los Angeles, CA  
 90007

**TELEPHONE:** (213) 746-2415

**DIRECTOR:** Canaday, R. M.

**PARENT-SPONSOR-HOST AFFILIATION:** Univ. of Southern California

**YEAR INFORMATION SOURCE BEGAN:** 1953

**MISSION:** To maintain an international center of excellence in safety education and training through offerings of graduate, undergraduate and special intensive training programs. To conduct safety research on contract and non-contract basis; to provide a center for conferences, symposia, and workshops for safety educational purposes; to perform services to the community in the area of safety; and to sustain information services through libraries, publications and consulting actions.

**SUBJECT SCOPE:** Mechanics of structural failure; Man-machine hazards; Structural materials limitations (metallic and nonmetallic); Fire, explosion and detonations; Aircraft problems; Industrial safety manuals, codes, specifications, standards, etc.; Safety analysis; Human factors engineering; Dangerous materials.

**MAJOR SUBJECT TERMS:** Aerospace engineering; Safety engineering; Aircraft problems; Human factors engineering; Accident investigation; Accident prevention; Safety analysis; Structural failure; Structural materials; Hydraulics; Explosives; Industrial safety; Safety regulations; Industrial hygiene; Transportation; Fires; Hazardous materials; Education.

**SPECIAL SCOPE FEATURES:** Expertise in safety education emphasizing multidisciplinary features in terms of safety management; safety technology and human factors. Capability for design, development and presentations of safety education and training requirements ranging from singular subject matter or intensive course training to degree programs at undergraduate and graduate levels.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Canaday, R. M.	Education; Safety Engineering	(213) 746-2415

**STAFF:** Full-time - professional 18, nonprofessional 11, total 29; part-time - professional 35, nonprofessional 0, total 35.

**INTERNAL PUBLICATIONS:** Books, textbooks, workbooks; handbooks/manuals; technical reports; reference lists/bibliographies; magnetic tape bibliographic data.

**HOLDINGS:** Books 5,500; abstracts/indexes; reports and reprints; microfilm 350; periodicals; reference lists/bibliographies; standards and specifications; films and slides; technical manuals; newsletters-trade literature.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; advisory and consulting services; referrals; bibliographic abstracts.

**OTHER SERVICES:** On-site use of collection; interlibrary loans; reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; staff or members of affiliated organizations; government employees.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1974

## INSTITUTE OF SAFETY AND SYSTEMS MANAGEMENT, TRAFFIC SAFETY CENTER

**ADDRESS:** Institute of Safety and Systems Management  
 University of Southern California  
 University Park  
 Los Angeles, CA  
 90007

**TELEPHONE:** (213) 746-5395

**DIRECTOR:** Jones, G. P.

**PARENT-SPONSOR-HOST AFFILIATION:** Univ. of Southern California

**YEAR INFORMATION SOURCE BEGAN:** 1975

**MISSION:** To provide education and training programs; conduct accident and traffic safety research programs; provide a center for conferences, symposia and seminars; provide information services through libraries, publications, and consulting services; all as related to the study of accident causation and prevention.

**SUBJECT SCOPE:** Safety analysis; Ground transportation equipment; Dangerous materials; Human factors engineering.

**MAJOR SUBJECT TERMS:** Information retrieval; Accident prevention; Vehicles (land); Highway safety; Hazardous materials; Transportation; Human factors engineering; Education.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Performs selected research in traffic safety and translates findings into seminars, symposia, short courses, and academic education and training, with emphasis on developing educators in the field, traffic safety manpower development, and awareness broadening towards traffic safety for professionals and management personnel.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Flauboe, E. E.	Accident Investigation	(213) 746-5395

**STAFF:** Full-time - professional 10, nonprofessional 2, total 12; part-time - professional 5, nonprofessional 5, total 10.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; statistical compilations; newsletters/trade literature; conference papers; reference lists/bibliographies.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; graphics/tables; films and slides and video tapes.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; education, community and government agencies.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

ORIGINAL PAGE IS  
 OF POOR QUALITY

C.P.

## INTERNATIONAL ASSOCIATION OF CHIEFS OF POLICE (IACP)

**ADDRESS:** 11 Firstfield Road  
Gaithersburg, MD  
20760

**TELEPHONE:** (301) 948-0922

**DIRECTOR:** King, G. D.

**YEAR INFORMATION SOURCE BEGAN:** 1893

**MISSION:** To foster police cooperation and the exchange of information and experience among police administrators internationally and to professionalize the police service in all parts of the world through the development and dissemination of sophisticated techniques in areas ranging from specialized training to executive development.

**SUBJECT SCOPE:** Dangerous materials; Safety analysis; Personnel selection, training, and evaluation; Operations, strategy and tactics; Intelligence.

**MAJOR SUBJECT TERMS:** Safety analysis; Highway safety; Airports; Personnel development; Explosives; Information retrieval; Security.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** The identification of critical issues in law enforcement and security with the purpose of isolating impacting factors and to then design doctrine and countermeasures.

**SPECIAL SCOPE FEATURES:** Use and development of canine units in bomb detection.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Kelly, J.	Airports; Security	(301) 948-0922

**STAFF:** Full-time - professional 75, nonprofessional 75, total 150; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Book catalogs; books; handbooks/manuals; technical reports; periodicals/journals; newsletters/trade literature; conference papers; reference lists/bibliographies; standards and specifications.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** On-site use of collection; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; staff or members of affiliated organizations.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

**INTERNATIONAL ASSOCIATION OF FIRE CHIEFS, INC. (IAFC)**

**ADDRESS:** Suite 1112  
1725 K Street, N.W.  
Washington, DC  
20006

**TELEPHONE:** (202) 833-3420

**DIRECTOR:** Hurley, J. F.

**YEAR INFORMATION SOURCE BEGAN:** 1973

**MISSION:** To support the members and staff of the IAFC, government agencies and representation, industry, and other users with information and research on all aspects of the problem of hostile fire in the environment; to serve as a clearing house for fire information to provide a medium of information collection, identification and distribution to the fire service; to provide a forum for expression of ideas and discussion of current topics.

**SUBJECT SCOPE:** Safety analysis; Industrial safety manuals, codes, specifications, standards; Fire, explosion and detonations; Safety engineering; Structural materials limitations (metallic and non-metallic).

**MAJOR SUBJECT TERMS:** Hazardous materials; Compressed gas; Liquified gases; Radioactive spills; Fabrication; Structural materials; Structural engineering; Rescue operations; Personnel development; Explosives; Combustion; Safety analysis; Safety engineering; Safety regulations; Fire hazards; Fires; Fire fighting; Fire prevention; Fire resistant materials; Fire extinguishing agents.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Fire ground operations, administration, and safety related activities related to fire or the rescue service.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Quay, D.	Information Retrieval; Fires	(202) 833-3420

**STAFF:** Full-time - professional 4, nonprofessional 10, total 14; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; abstracts; indexes; technical reports; statistical compilations; periodicals/journals; newsletters/trade literature; conference papers; reference lists/bibliographies; magnetic tape bibliographic data.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; advisory and consulting services; referrals.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO)

**ADDRESS:** 5360 South Workman Mill Road  
Whittier, CA  
90601

**TELEPHONE:** (213) 699-0541

**DIRECTOR:** Bahr, J. E.

**YEAR INFORMATION SOURCE BEGAN:** 1922

**MISSION:** Publication, maintenance and promotion of the Uniform Building Code and its related documents; investigation and research of principles underlying safety to life and property in the construction, use and location of buildings and related structures; development and promulgation of uniformity in regulations pertaining to building construction; education of the building official; and formulation of guidelines for the administration of building inspection departments.

**MAJOR SUBJECT TERMS:** Standards; Structural engineering; Structural materials; Safety regulations; Materials; Fabrication; Inspection; Construction.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Examination, evaluation and recommendation of alternate methods of construction and building products; the evaluation and certification of quality control agencies and agencies involved in both inspection and testing.

**SPECIAL SCOPE FEATURES:** Building codes, specifications, standards, etc.; Structural engineering; Construction materials.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Carter, T. H.	Structural Engineering	(213) 699-0541 ext 35
Bahr, J. E.	Structural Engineering	(213) 699-0541 ext 25
Watson, D. P.	Structural Engineering; Information Retrieval	(213) 699-0541 ext 40

**STAFF:** Full-time - professional 19, nonprofessional 17, total 36; part-time - professional 4, nonprofessional 0, total 4.

**INTERNAL PUBLICATIONS:** Book catalogs; books; handbooks/manuals; technical reports; periodicals/journals; newsletters/trade literature; conference papers; standards and specifications.

**HOLDINGS:** Books; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; films and slides; total number of titles 500; range of years of total 54.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; state-of-the-art reviews; analytical studies; advisory and consulting services; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Interlibrary loans; reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfilm copy; microfiche copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; staff or members of affiliated organizations; government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users; charge for user outside organization.

DECEMBER 1975

## INTERNATIONAL PLANETARY PATROL

**ADDRESS:** Box 1269  
Flagstaff, AZ  
86001

**TELEPHONE:** (602) 774-3358

**DIRECTOR:** Baum, W. A.

**PARENT-SPONSOR-HOST AFFILIATION:** Planetary Research Center, Lowell Observatory

**YEAR INFORMATION SOURCE BEGAN:** 1969

**MISSION:** To obtain uninterrupted imaging in order to investigate the day to day and hour to hour changes in the large scale atmospheric and surface features of the planets.

**SUBJECT SCOPE:** Extraterrestrial environmental hazards; Physics; Astronomy; Atmospheric sciences.

**MAJOR SUBJECT TERMS:** Extraterrestrial environments; Atmospheres; Astronomy; Physics.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Recent and current research includes the distribution and motion of clouds on Mars, the development and decay of Martian dust storms, the seasonal, diurnal and random fluctuations in contrast between adjacent light and dark regions on Mars, the detection of vertical shear in the Jovian atmosphere, the longitudinal oscillation of the Red Spot, the dependence of rotation period on xenographic latitude and on time, the eruption and spread of SEB disturbances, and the retrograde circulation of the Venus cloud deck.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext.(x)
Baum, W. A.	Astronomy	(602) 774-3358
Capen, C. F.	Astronomy	(602) 774-3358
Martin, L. J.	Astronomy	(602) 774-3358

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## INTERNATIONAL SAFETY ACADEMY (ISA)

**ADDRESS:** 1021 Georgia Avenue  
Macon, GA  
31201

**TELEPHONE:** (912) 746-7677

**DIRECTOR:** O'Shell, H. E.

**PARENT-SPONSOR-HOST AFFILIATION:** ESIS, Inc. (An INA Corporation Company)

**YEAR INFORMATION SOURCE BEGAN:** 1971

**MISSION:** To provide clients with up-to-date loss control (safety) management training, publications, and consulting.

**SUBJECT SCOPE:** Industrial safety manuals, codes, specifications, standards; Safety analysis; Laboratories, test facilities and test equipment; Toxicology.

**MAJOR SUBJECT TERMS:** Toxicity; Physiological hazards; Personnel development; Accidents; Accident prevention; Safety analysis; Safety procedures; Industrial safety; Safety equipment; Vehicles (land); Environments.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Conducts research and development activities on a fee basis for private and public clients.

**SPECIAL SCOPE FEATURES:** Through the Academy's four divisions (Conference Division, Consultative Services Division, Products and Services and Environmental Health Laboratory) a total loss control program is available for private industry and government entities. Areas of specialization are general industry and federal safety programs.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Barenklaau, K. E.	Education; Safety Engineering	(912) 746-7677
Holmgren, M. E.	Safety Engineering	(912) 746-7677
Stevenson, G. D.	Materials Handling; Education	(912) 746-7677
Glascock, H. E.	Vehicles (Land); Information Retrieval	(912) 746-7677

**STAFF:** Full-time - professional 6, nonprofessional 4, total 10; part-time - professional 14, nonprofessional 2, total 16.

**INTERNAL PUBLICATIONS:** Book catalogs; books; handbooks/manuals; technical reports; newsletters/trade literature; reference lists/bibliographies.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** On-site use of collection; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## JET PROPULSION LAB.

**ADDRESS:** California Institute of Technology  
4800 Oak Grove Drive  
Pasadena, CA  
91103

**TELEPHONE:** (213) 354-4321

**DIRECTOR:** Murray, B.

**PARENT-SPONSOR-HOST AFFILIATION:** California Institute of Technology; NASA

**YEAR INFORMATION SOURCE BEGAN:** 1944

**MISSION:** To conduct space research and exploration for the NASA program and to conduct research for nonspace sponsors mostly in the fields of environmental and Civil Engineering.

**SUBJECT SCOPE:** Astronomy and astrophysics; Aeronautics; Space technology; Physics; Structural engineering; Navigation and guidance; Propulsion, engines and fuels; Geology and mineralogy; Atmospheric sciences; Civil engineering; Biological and medical science; Safety analysis.

**MAJOR SUBJECT TERMS:** Safety analysis; Astronomy; Aeronautics; Spacecraft; Earth sciences; Physics; Civil engineering; Structural engineering; Information retrieval; Aerospace engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Current research projects are in the fields of planetary exploration, the deep space network, physical sciences, earth and planetary sciences, and Civil Engineering.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Montgomery, L. C.	Safety Engineering	(213) 354-4321

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; films and slides; total number of titles 90,000.

DECEMBER 1975

JOINT INDUSTRIAL COUNCIL (JIC)

ADDRESS: 7901 Westpark Drive  
McLean, VA  
22101

TELEPHONE: (703) 893-2900

DIRECTOR: Loeffler, E. J.

YEAR INFORMATION SOURCE BEGAN: 1965

MISSION: To promulgate standards for the application of electrical, hydraulic and pneumatic equipment to machine tools and similar industrial equipment.

SUBJECT SCOPE: Machinery, tools and industrial equipment; Hydraulic and pneumatic equipment; (Electrical) components; Industrial safety manuals, codes, specifications, standards, etc..

MAJOR SUBJECT TERMS: Standards; Pneumatic equipment; Hydraulics; Electronics.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Loeffler, E. J.	standards	(703) 893-2900

INTERNAL PUBLICATIONS: Standards and specifications.

HOLDINGS: Standards and specifications.

DECEMBER 1975

## KNOWLEDGE AVAILABILITY SYSTEMS INFORMATION CENTER (KASC)

**ADDRESS:** NASA Industrial Applications Center  
 KASC - University of Pittsburgh  
 710 L.I.S. Building  
 Pittsburgh, PA  
 15260

**TELEPHONE:** (412) 624-5212

**DIRECTOR:** Howie, E.

**PARENT-SPONSOR-HOST AFFILIATION:** University of Pittsburgh; NASA

**YEAR INFORMATION SOURCE BEGAN:** 1964

**MISSION:** To facilitate the transfer of technology by providing information to the community from both hard and soft science data banks.

**SUBJECT SCOPE:** Aeronautics; Chemistry; Mathematical sciences; Electronics and electrical engineering; Behavioral and social sciences; Biological and medical sciences; Civil engineering; Physics; Earth sciences and oceanography.

**MAJOR SUBJECT TERMS:** Information retrieval; Aeronautics; Chemistry; Physics; Aerospace medicine; Mathematics; Earth sciences; Electronics; Instruments; Civil engineering; Mechanical engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** KASC is closely affiliated with the Graduate School of Library and Information Science at the University of Pittsburgh and benefits from and cooperates with research by the school in information science. Research scientists at NASA Research Centers are available by special arrangements for advice and discussion with KASC industrial clients.

**SPECIAL SCOPE FEATURES:** Retrospective and current awareness searches may be performed on single files or on all KASC held files which are suitable. A search of more than one file on a given subject is called a Mult-file search. Additional service is given in the form of categorized and analyzed results from many files. The latter service is performed by an appropriate subject specialist and is known as a Project Survey.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Clough, E.	Marketing	(412) 624-5213
Couli, J.	Chemical Engineering	(412) 624-5281
Geiger, G. E.	Mechanical Engineering	(412) 624-5235
Gratton, M. A.	Materials Handling	(412) 624-5306
Lang, L. S.	Chemical Engineering	(412) 624-5214
Lupish, R. P.	Physics; Electronics	(412) 624-5213
Miller, J. P.	Civil Engineering	(412) 624-5363
Pugh, M. J.	Chemistry	(412) 624-5214
Sze, T. W.	Electrical/Electronic Engineering	(412) 624-5418
Trout, H. E.	Materials Handling	(412) 624-5307
Turkes, W. R.	Engineering Management	(412) 624-5262

**STAFF:** Full-time - professional 9, nonprofessional 8, total 17; part-time - professional 11, nonprofessional 1, total 12.

**HOLDINGS:** Abstracts/indexes; reference lists/bibliographies.

ORIGINAL PAGE IS  
 OF POOR QUALITY

## KNOWLEDGE AVAILABILITY SYSTEMS INFORMATION CENTER (KASC)

## DATA BANK RESOURCES:

Name or Acronym	Description of Contents	Range of Years	No. of Records
ABI (INFORM)	Business	71-75	14,000
APILIT	Petroleum Literature	64-75	169,000
ABIPAT	Petroleum Patents	64-75	86,000
BIOSIS	Biology	72-75	850,000
CAIN-NAL	Agriculture	72-75	120,000
Chemical Abst.	Chemistry	68-75	2,112,722
Cond.			
CMA-EMA	Chemical and Equipment Marketing	72-75	22,000
E. I. Compendex	Engineering	70-75	285,000
ERIC	Education	66-75	192,000
GEO-REF	Geosciences	67-75	239,000
F & S Indexes	Business-marketing	72-75	450,000
FSTA	Food	72-75	450,000
IFI CLAIMS-CHEM	Chem. patents	50-75	350,000
INSPEC	Physics, electrical engineering, computers-control	69-75	600,000
ISMEC	Mechanical Engineering	73-75	30,000
ISI (SCI)	Life Sciences	74-75	650,000
ITT-MIT	Textiles	66-75	128,583
ISI (SOC)	Social Sciences	72-75	180,000
LIBCON	Library Congress Cataloging	65-75	837,000
MATRIX	Communications, Ecology, Urban Planning	73-75	15,000
METADEX	Metallurgy	66-75	250,000
MEDLINE	Medical	69-75	1,503,071
NASA	Engineering-Life Science, Mgmt.	62-75	745,575
NTIS	Government Reports	64-75	320,000
NYT	News journals, N.Y. Times and others	69-75	1,031,190
P-E NEWS	Petroleum-business	75	500
PREDICASTS	Statistics-Forecasts-History	71-75	90,000
DOMESTIC STATISTICS			
PREDICASTS INTERNATIONAL STATISTICS	Statistics-Forecasts-History	72-75	100,000
PSYCH ABST	Psychology-Behavioral Science	67-75	120,905
POLLUTION ABSTR	Pollution-Environment	70-75	35,000
SEARCH	Chemical Markets	72-75	45,000
SSIE	Research in Progress	74-75	110,000
SCI SEARCH	Life Sciences	72-74	546,000
WAA	Aluminum	68-74	40,000
WTA	Textiles	70-75	46,652

**REFERENCE AND QUERY SERVICES:** Retrospective searches; selective dissemination of information; state-of-the-art reviews; analytical studies.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfiche copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## LEAK, JOHN S., CONSULTANTS

**ADDRESS:** 3744 Valencia Avenue  
San Bernardino, CA  
92404

**TELEPHONE:** (714) 883-0773

**DIRECTOR:** Leak, J. S.

**YEAR INFORMATION SOURCE BEGAN:** 1974

**MISSION:** To lend technical expertise on a contractual or consulting basis in all aspects of flight and flight safety, including ground, explosives, life sciences, and systems safety engineering.

**SUBJECT SCOPE:** Safety analysis; Aeronautics; Aircraft flight instrumentation; Aircraft; Air facilities.

**MAJOR SUBJECT TERMS:** Accidents; Accident investigation; Flight instruments; Aircraft safety; Airports; Landing aids; Air traffic control; Aircraft problems; Aeronautics; Civil aviation; Aerospace engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Consulting services in the areas of aircraft accident analysis, system safety and materials reliability.

**SPECIAL SCOPE FEATURES:** To facilitate the extraction of accident data and statistics the following programs are available: 1) Self Generating Multiple Search Programs which retrieve data bank information under selective parameters established by the user; 2) Analytic Table Program which produces a matrix showing numbers of incidents common to two selected parameters; 3) Calculate Injury Programs which tabulate injuries received by aircraft occupants and non-occupants; and 4) Accident data printouts for any selection criteria.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Leak, J. S.	Aircraft Safety	(714) 883-0773

**INTERNAL PUBLICATIONS:** Technical reports; periodicals/journals; conference papers.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
NTSB Data Files	Probable cause and related information on all civil aircraft accidents and incidents	1964 to present	all civil accidents

**REFERENCE AND QUERY SERVICES:** Questions answered individually; state-of-the-art reviews; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation (based on NTSB data bank).

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

**LIGHTNING AND PRECIPITATION STATIC TEST LABORATORY (NAVAIRSYSCOM)**

**ADDRESS:** Systems Engineering Test Directorate  
Naval Air Test Center  
Naval Air Station, Patuxent River, MD  
20670

**DIRECTOR:** Campbell, W., Capt.

**PARENT-SPONSOR-HOST AFFILIATION:** Naval Air Systems Command

**YEAR INFORMATION SOURCE BEGAN:** 1970

**MISSION:** To support Naval Air Systems Command by providing a test and evaluation laboratory capable of evaluating lightning and p-static effects on Naval aircraft; to identify problem areas and initiate protection programs both in-house and on contract in these problem areas; to author and compile reports of test results relating to lightning and p-static effects on aircraft.

**SUBJECT SCOPE:** Mechanics of structural failure; Man-machine hazards; Structural materials limitations (metallic and nonmetallic); Propellants, fuels, lubricants, hydraulic fluid safety; Fire, explosion and detonations; Dangerous materials; Industrial safety manuals, codes, specifications, standards, etc.; Safety analysis.

**MAJOR SUBJECT TERMS:** Lightning; Aircraft safety; Materials; Shielding; Fuels; Safety analysis; Safety regulations.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Performs safety and mission related projects at NATC and on contract to protect aircraft from the direct and indirect effects of lightning and p-static.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Walker, W. T.	Lightning	(301) 863-4811
Lane, R. F.	Electromagnetism	(301) 863-4811

**STAFF:** Full-time - professional 2, nonprofessional 2, total 4; part-time - professional 4, nonprofessional 3, total 7.

**INTERNAL PUBLICATIONS:** Technical reports.

**HOLDINGS:** Reports and reprints; standards and specifications; total number of titles 400.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; advisory and consulting services; referrals.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy available from command.

**USER QUALIFICATIONS:** General technology community; government employees; government contractors.

**USER RESTRICTIONS:** Federal security clearance.

**PRICING AND SERVICES CHARGES:** Charge for non-government users.

DECEMBER 1975

## LIGHTNING AND TRANSIENTS RESEARCH INST. (LTRI)

**ADDRESS:** 2531 W. Summer Street  
St. Paul, MN  
55113

**TELEPHONE:** (612) 631-1221

**DIRECTOR:** Rabb, J. D.

**YEAR INFORMATION SOURCE BEGAN:** 1946

**MISSION:** Safety of aircraft from atmospheric electricity. Transient effects on electrical electronic systems.

**SUBJECT SCOPE:** Safety analysis; Aircraft problems; Safety engineering; Electricity and magnetism; Electronic and electrical engineering.

**MAJOR SUBJECT TERMS:** Electricity; Safety engineering; Safety analysis; Instruments; Lightning; Aircraft safety.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Research on lightning and static electrification effects on aerospace vehicles, electronic systems and power transmission systems.

**SPECIAL SCOPE FEATURES:** Areas of special interest include lightning hazards protection and static electrification into aerospace vehicles (fuel systems, electrical-avionic systems, structures, personnel); lightning protection for power and electronics systems; triggering of natural lightning.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Fobb, J. D.	Aerospace Engineering	(612) 631-1221
Chen, T.	Shock Waves; Electronics	(612) 631-1221
Newman, M.	Lightning	(612) 631-1221
Merriman, J. H.	Power Supplies	(612) 631-1221

**STAFF:** Full-time - professional 4, nonprofessional 3, total 7; part-time - professional 0, nonprofessional 3, total 3.

**INTERNAL PUBLICATIONS:** Technical reports; conference papers.

**HOLDINGS:** Reports and reprints; total number of titles.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; referrals.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Not available.

**USER QUALIFICATIONS:** General technology community; staff or members of affiliated organizations.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## LOCKHEED RADIATION PHYSICS GROUP

**ADDRESS:** Palo Alto Research Laboratories  
3251 Hanover Street  
Palo Alto, CA  
94304

**TELEPHONE:** (415) 493-4411

**DIRECTOR:** Kumer, J. B.

**PARENT-SPONSOR-HOST AFFILIATION:** Lockheed Palo Alto Research Laboratory

**YEAR INFORMATION SOURCE BEGAN:** 1966

**MISSION:** To gather and analyze H alpha and Helium data pertaining to active solar atmosphere regions; to study interaction with earth atmosphere.

**SUBJECT SCOPE:** Atmospheric physics; Extraterrestrial environmental hazards.

**MAJOR SUBJECT TERMS:** Atmospheres; Extraterrestrial environments; Solar radiation; Radiation; Thermal radiation; Radiation belts; Air.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Kumer, J. B.	Atmospheres; Physics	(415) 493-4411 ext 4532
Kulander, J. L.	Physics	(415) 493-4411 ext 45241
Schoolman, S. A.	Solar Radiation; Information Retrieval	(415) 493-4411 ext 45262

**INTERNAL PUBLICATIONS:** Indexes; technical reports; statistical compilations.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; statistical compilations.

**REFERENCE AND QUERY SERVICES:** Questions answered individually.

**USER QUALIFICATIONS:** Ad hoc permission.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## LOS ALAMOS SCIENTIFIC LABORATORY, CRYOGENIC ENGINEERING SECTION (LASL)

**ADDRESS:** Los Alamos Scientific Laboratory  
MS764  
P.O. Box 1663  
Los Alamos,  
87545

**TELEPHONE:** (505) 667-4838

**DIRECTOR:** Keller, W. E., Q-26 group leader

**PARENT-SPONSOR-HOST AFFILIATION:** University of California, Los Alamos

**YEAR INFORMATION SOURCE BEGAN:** 1943

**MISSION:** The Cryogenic Engineering Section is engaged in developing advanced systems in support of other LASL programs: basic research in low-temperature physics, cryogenic engineering, and applied superconductivity as well as the determination of engineering properties of materials at low temperatures.

**SUBJECT SCOPE:** Cryogenic safety; Space vehicle problems; Propellants, fuels, lubricants, hydraulic fluids safety; Power sources; Materials; Laboratories, test facilities and test equipment; Nuclear science and technology; Physics; Thermodynamics; Particle physics; Plasma physics; Masers and lasers; Fluid mechanics.

**MAJOR SUBJECT TERMS:** Physics; Fluid mechanics; Physical properties; Cryogenic fluid safety; Liquified gases; Hydrogen; Thermodynamics; Nuclear physics; Nuclear energy; Spacecraft; Energy; Fuels; Electricity; Power supplies; Superconductors.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Cryogenic target development for accelerated particle experiments, solid hydrogen target development for laser applications, heat transport in cryogenic fluids under conditions of zero gravity, the role of liquid hydrogen in a possible future economy based on hydrogen as a portable fuel, and the large scale applications of superconductivity.

**SPECIAL SCOPE FEATURES:** The Section's capabilities include sophisticated refrigeration systems, gas-handling systems, cryopumping systems, and various diagnostic systems as required.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Keller, W. E.	Superconductors	(505) 667-4838
Edeskuty, F. J.	Liquid Hydrogen	(505) 667-4240

**STAFF:** Full-time - professional 11, nonprofessional 20, total 31; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Technical reports; periodicals/journals; conference papers; reference lists/bibliographies.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; referrals.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** Immediate staff or members; government contractors.

**USER RESTRICTIONS:** Federal security clearance.

**PRICING AND SERVICES CHARGES:** Charge for user outside organization

DECEMBER 1975

**MANUFACTURING CHEMISTS ASSOCIATION, INC., INFORMATION SERVICES (MCA)**

**ADDRESS:** 1825 Connecticut Avenue, N.W.  
Washington, DC  
20009

**TELEPHONE:** (202) 483-6126

**DIRECTOR:** Carnes, J. R.

**YEAR INFORMATION SOURCE BEGAN:** 1872

**MISSION:** Through its four operating Committees - Technical Government Relations, Public Relations and Information Services, the association seeks to promote safe and clean practices in the manufacture, transportation, handling and use of chemicals and chemical products, and to collect and disseminate published statistics and other data concerning the chemical industry. It also provides immediate advice for those at the scene of transportation emergencies involving chemicals through its Chemical Transportation Emergency Center (CHEMTREC).

**SUBJECT SCOPE:** Industrial safety manuals, codes, specifications; Dangerous materials; Chemistry; Industrial processes.

**MAJOR SUBJECT TERMS:** Safety regulations; Safety procedures; Industrial safety; Chemistry; Chemical properties; Chemical engineering; Chemical hazards; Toxicity; Shipping regulations; Environments; Fire hazards; Fire prevention; Accident prevention; Physiological hazards; Vehicles (land).

**RESEARCH AND DEVELOPMENT ACTIVITIES:** The development of new and specialized containers, equipment, handling methods, and procedures for the safe transporting of chemical products.

**SPECIAL SCOPE FEATURES:** MCA is able to provide expertise in the following areas related to the chemical industry: occupational health, transportation and packaging, chemical plant equipment, plastics and education.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Campbell, M. V.	Information Retrieval	(202) 483-6126
Brown, H.	Water Resources	(202) 483-6126
Watts, S.	Transportation	(202) 483-6126
Zercher, J.	Information Retrieval	(800) 424-9300

**STAFF:** Full-time - professional 32, nonprofessional 41, total 73; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Book catalogs; handbooks/manuals; technical reports; statistical compilations; periodicals/journals; newsletters/trade literature; reference lists/bibliographies; standards and specifications.

**HOLDINGS:** Abstracts/indexes; reports and reprints; reference lists/bibliographies; standards and specifications; graphics, tables; statistical compilations; films and slides.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** On-site use of collection; reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

**MASSACHUSETTS INST. OF TECHNOLOGY, DEPARTMENT OF MECHANICAL ENGINEERING (MIT)**

**ADDRESS:** Massachusetts Institute of Technology  
 Sloan Laboratory  
 Building 31  
 Cambridge, MA  
 02139

**TELEPHONE:** (617) 253-3358

**DIRECTOR:** Richardson, H. H.

**YEAR INFORMATION SOURCE BEGAN:** 1865

**MISSION:** The Department of Mechanical Engineering is devoted to education and research in the following fields: Mechanics, Fibers and Polymers, Textiles, Tribology, Acoustics and Vibrations, Heat and Mass Transfer, Power and Energy, Biomedical and Environmental Engineering, Design, Dynamics and Controls, and Transportation.

**SUBJECT SCGPE:** Fibers and textiles; Acoustics; Chemistry; Wave propagation; Fire, explosion and detonations; Cryogenic safety.

**MAJOR SUBJECT TERMS:** Textiles; Acoustics; Fire prevention; Fire protection; Fire fighting; Combustion; Liquified gases; Cryogenic fluid safety; Air pollution.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Ongoing research projects include: Physical and Chemical Kinetic Models of Flame Propagation and Inhibition, Smoldering Combustion and the Transition to Flaming or Extinguishment, Safety Hazards of LNG Spills, and Aircraft Air Pollution.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Toong, T. Y.	Fires	(617) 253-3358
Smith, P.	Cryogenic Fluid Safety	(617) 253-4465
Garris, G. A.	Acoustics	(617) 253-2432
Appleton, J. P.	Flame Propagation; Fire Suppression	(617) 253-2295
Flagan, R. C.	Flame Propagation; Fire Suppression	(617) 253-4322
Fay, J. A.	Liquified Gases; Cryogenic Fluid Safety	(617) 253-2236
Heywood, J. B.	Air Pollution	(617) 253-2243

**STAFF:** Full-time - professional 50, nonprofessional 100, total 150; part-time - professional 1, nonprofessional 0, total 1.

**INTERNAL PUBLICATIONS:** Periodicals/journals; conference papers.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy if not proprietary.

**USER QUALIFICATIONS:** General technology community; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

**MCDONNELL AIRCRAFT CO., LIGHTNING SIMULATION LABORATORY**

**ADDRESS:** McDonnell Aircraft Company  
P.O. Box 516  
St. Louis, MO  
63044

**TELEPHONE:** (314) 232-5758

**DIRECTOR:** Clifford, D. W.

**YEAR INFORMATION SOURCE BEGAN:** 1967

**MISSION:** To provide aircraft designers with the test capability needed to evaluate the susceptibility of aircraft hardware to lightning damage.

**SUBJECT SCOPE:** Fire, explosion and detonations; Combustion and ignition; Fuels; Aircraft problems.

**MAJOR SUBJECT TERMS:** Lightning; Combustion; Aircraft safety.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Performs continual evaluation of lightning simulation techniques and equipment in relation to newly acquired knowledge of the natural environment. Performs development of new simulation equipment and techniques.

**SPECIAL SCOPE FEATURES:** High voltage simulation to 5 million volts for the evaluation of lightning attachment behavior models and full scale components or aircraft and for the evaluation of dielectric structures and materials. High peak current simulation to 200,000 amperes for damage assessment of structures and components and full scale aircraft. High coulomb simulation for damage assessment related to continuing current lightning components. Windblown swept-stroke testing using wind speeds to 300 knots for evaluation of swept lightning stroke effects, including dynamic restrike simulation. High voltage DC simulation to 400 kilovolts for field effects studies and dielectric systems evaluation. Facility is equipped with a full complement of photographic equipment.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Clifford, D. W.	Lightning; Tests	(314) 232-5033
Schulte, E. H.	Lightning; Tests	(314) 232-5758

**STAFF:** Full-time - professional 4, nonprofessional 8, total 12; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Technical reports; conference papers.

**HOLDINGS:** Books; reports and reprints; statistical compilations; films and slides.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; state-of-the-art reviews; advisory and consulting services.

**OTHER SERVICES:** On-site use of collection; conferences/symposiums; seminars.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy (reprints).

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## METALS PROPERTIES COUNCIL, INC. (MPC)

**ADDRESS:** 345 East 47th Street  
New York, NY  
10017

**TELEPHONE:** (212) 644-7693

**DIRECTOR:** Schaefer, A. O.

**YEAR INFORMATION SOURCE BEGAN:** 1966

**MISSION:** To identify major unfulfilled needs for reliable data on the engineering properties of metals and alloys; to evolve, plan, and conduct programs for collecting, generating and evaluating such data so it may be useful; to arrange for making such data available promptly by reports, publications, correspondence or other means; to keep informed of and to utilize the results of related activities, both national and international, in order to avoid duplication of effort; and, to act as co-sponsor, with the American Society of Mechanical Engineers and the American Society of Testing and Materials, of the Joint Committee on Effect of Temperature on the Properties of Metals, and to raise funds for financing the activities of the Joint Committee.

**SUBJECT SCOPE:** Metals; Composite materials; Structural engineering; Mechanics of structural failure; Structural materials limitations (metallic and nonmetallic); Corrosion and degradation.

**MAJOR SUBJECT TERMS:** Materials; Molybdenum; Metallurgy; Mechanical engineering; Reactor safety; Liquified gases; Materials tests; Fatigue (materials); Corrosion; Mechanical properties.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Current projects include: effects of temperature and stress on carbon and alloy steel; temper embrittlement in chromium molybdenum steels; development of tests of creep-fatigue interaction; surveillance testing of nuclear reactors as a check on the effects of irradiation; developing critical property data of zircaloy tubing in nuclear reactors; stress-corrosion data on materials for propellers for super-tankers; and fracture toughness of heavy commercial steel plates used in the construction of storage tanks.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (X)
Schaefer, A. O.	Materials; Metallurgy	(212) 644-7693

**INTERNAL PUBLICATIONS:** Technical reports; newsletters/trade literature; reference lists/bibliographies.

DECEMBER 1975

## NATIONAL BUREAU OF STANDARDS, CENTER FOR FIRE RESEARCH

**ADDRESS:** Building 225, B-142  
Washington, DC  
20234

**TELEPHONE:** (301) 921-3143

**DIRECTOR:** Lyons, J. W.

**YEAR INFORMATION SOURCE BEGAN:** 1974

**MISSION:** To insure the development of a technical base needed in support of the national goal to reduce fire losses by 50 percent in the next generation.

**SUBJECT SCOPE:** Combustion and ignition; Fire, explosion and detonations; Physics; Chemistry; Toxicology; Stress physiology; Industrial safety manuals, codes, specifications, standards, etc.; Fibers and textiles.

**MAJOR SUBJECT TERMS:** Chemistry; Combustion; Compressed gas; Consumer protection; Fluid mechanics; Fire hazards; Fire protection; Fire prevention; Fires; Toxicity; Physics; Tests; Standards; Structural materials; Safety engineering; Physiological hazards; Hazardous materials.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Carries out research on the fundamental aspects of fires, develops fire safety test methods for use by government agencies and as proposed standards for voluntary standards groups; provides expert advice to model building code groups and regulatory agencies.

**SPECIAL SCOPE FEATURES:** New test methods concepts for consumer products, particularly finishings and apparel; test methods for building materials; full scale fire testing capabilities, permitting furnished rooms and similar structural interiors to be instrumented and studied during controlled fire conditions. The Center maintains an active program, largely on grants and contracts, on combustion product toxicology. This includes expertise in analytical chemistry of combustion products, as well as supporting laboratory studies on the toxicology of these products. Research is also being carried out on flame intermediates, using a laser diagnostic approach, and on the fluid dynamics surrounding room fires, using a variety of chemical and numerical modeling methods.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Birky, M.	Combustion; Toxicity	(301) 921-3834
Buchbinder, B.	Fire Hazards	(301) 921-3246
Krockett, J.	Fires; Physics	(301) 921-3242
Huggett, C.	Chemistry; Fires	(301) 921-3771
Winger, J.	Fire Prevention	(301) 921-3116
Gross, D.	Fire Prevention; Construction	(301) 921-3461
Davis, S.	Fire Resistant Materials	(301) 921-3744
Custer, R.	Fire Protection; Detectors	(301) 921-3387
Nelson, H.	Fires	(301) 921-3175
Baum, H.	Fluid Mechanics	(301) 921-3242
Robertson, A.	Fire Hazards; Tests	(301) 921-3143
Rowen, J.	Safety Analysis	(301) 921-3143
Clarke, F.	Telecommunications	(301) 921-3143
Benjamin, I.	Fires; Standards	(301) 921-3255
Levine, R.	Combustion; Engineering	(301) 921-3845
Lyons, J.	Fire Resistant Materials	(301) 921-3143
Parker, W.	Fires; Tests	(301) 921-3461
Levin, B.	Fires	(301) 921-3143
Jason, N.	Information Retrieval	(301) 921-3245

**STAFF:** Full-time - professional 140, nonprofessional 0, total 140; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Technical reports; periodicals/journals; reference lists/bibliographies; magnetic tape bibliographic data; NBS internal reports; NBS technical notes.

**HOLDINGS:** Books 300; abstracts/indexes; reports and reprints 12,000; periodicals; standards and specifications.

## NATIONAL BUREAU OF STANDARDS, CENTER FOR FIRE RESEARCH

## DATA BANK RESOURCES:

Name or Acronym	Description of Contents	Range of Years	No. of Records
AIM-AER	Education	1971	15,000
ASI	Federal statistics	1974	
CAIN	Agriculture	1970	675,000
CHEMCON	Chemistry	1968	1,000,000
CIS INDEX	Congressional information	1970	4,500
COMPENDIX	Engineering	1970	400,000
ERIC	Education	1966	220,000
GEO-REF	Geology	1967	200,000
IDC-LIBCON	Catalogs of Library of Congress	1965	1,200,000
INFORM	Management and administration	1971	25,000
INSPEC	Computers, physics, electronics	1969	700,000
MEDLINE	Medicine	1970	500,000
NTIS	Government reports	1964	475,000
POLLUTION	Pollution control and research	1970	335,000
PSYCHOLOGY ABSTRACTS	Psychology	1967	150,000
SSIE	All areas of science	1973	

REFERENCE AND QUERY SERVICES: Questions answered individually; retrospective searches; selective dissemination of information; state-of-the-art reviews; advisory and consulting services; referrals; bibliographic abstracts; scientific or statistical data retrieval/compilation.

OTHER SERVICES: On-site use of collection; interlibrary loans; reproduction/publication services.

USER QUALIFICATIONS: General technology community; government employees; government contractors.

USER RESTRICTIONS: None; federal security clearance (classified material).

PRICING AND SERVICES CHARGES: All services free to qualified users.

DECEMBER 1975

## NATIONAL BUREAU OF STANDARDS, FIRE RESEARCH INFORMATION SERVICES (FRIS)

**ADDRESS:** National Bureau of Standards  
Bldg. 225, Rm. A 46  
Washington, DC  
20234

**TELEPHONE:** (301) 921-3246

**DIRECTOR:** Jason, N. H.

**YEAR INFORMATION SOURCE BEGAN:** 1971

**MISSION:** To operate an information service in the subject area of fire research for, and to provide technical information service to, the Center for Fire Research Staff (National Bureau of Standards) and to other users of fire information.

**SUBJECT SCOPE:** Aircraft problems; Space vehicle problems; Fire, explosion and detonations; Industrial safety manuals, codes, specifications, standards; Dangerous materials; Plastics; Fibers and textiles; Toxicology.

**MAJOR SUBJECT TERMS:** Fire prevention; Fire resistant materials; Fires; Fire hazards; Fire fighting equipment; Spacecraft; Combustion; Detectors; Warning systems; Textiles; Plastics; Materials tests; Hazardous materials; Transportation; Toxicity; Protective equipment; Aircraft safety; Fabrication; Structural materials; Fire extinguishing agents.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Jason, N. H.	Information Retrieval; Fires	(301) 921-3246

**STAFF:** Full-time - professional 1, nonprofessional 2, total 3; part-time - professional 1, nonprofessional 0, total 1.

**INTERNAL PUBLICATIONS:** Technical reports; newsletters/trade literature.

**HOLDINGS:** Books; reports and reprints; periodicals; reference lists/bibliographies; films and slides; total number of titles 12,000; range of years of total 1945-present.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; referrals.

**OTHER SERVICES:** On-site use of collection; interlibrary loans.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Not available.

**USER QUALIFICATIONS:** General technology community; government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** All services free to qualified users.

DECEMBER 1975

## NATIONAL BUREAU OF STANDARDS, MECHANICAL PROPERTIES SECTION

**ADDRESS:** National Bureau of Standards  
Metallurgy Division  
Mechanical Properties Section  
Washington, DC  
20234

**TELEPHONE:** (301) 921-2951

**DIRECTOR:** Christ, B. W.

**YEAR INFORMATION SOURCE BEGAN:** 1913

**MISSION:** Conducts basic and applied research on metals and metallurgical phenomena of technological importance. Operates facilities and provides services for (1) optical metallurgy, (2) the determination of mechanical properties, (3) forming and heat treatment of specimens. Cooperates with other Government agencies in the investigation of service failures and provides other agencies with consultation and advisory service in metallurgical matters.

**SUBJECT SCOPE:** Structural materials limitations (metallic and nonmetallic); Metals; Corrosion and degradation; Coatings, colorants and finishes.

**MAJOR SUBJECT TERMS:** Accident investigation; Structural failure; Failure; Explosions; Materials; Magnetic properties; X-rays; Metallurgy; Mechanical properties; Corrosion.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Current research includes: development of a test methodology for hydrogen embrittlement studies on intermediate strength steels; development of equipment which will permit uniaxial tensile testing at constant true strain rate; and development of a standard austenite reference material intended for the calibration of X-ray equipment used to determine austenite levels in steels.

**SPECIAL SCOPE FEATURES:** Section expertise is also available in failure avoidance study and failure analysis.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Early, J. G.	Metallurgy; Mechanical Engineering	(301) 921-2934
Christ, B. W.	Plasticity	(301) 921-2951
Jewitt, R.	Mechanical Properties	(301) 921-2977
Interrante, C. G.	Failure Analysis	(301) 921-2997
Simmons, J. A.	Mechanical Properties	(301) 921-3355
Smith, J. H.	Fracture Mechanics	(301) 921-2945
Kruger, J.	Failure Analysis	(301) 921-2094
Bertocci, U.	Failure Analysis	(301) 921-3619
Melmed, A. J.	Failure Analysis	(301) 921-2998
Iverson, W. P.	Pollution	(301) 921-2953
Arlslose, J. R.	Failure Analysis	(301) 921-2191

**STAFF:** Full-time - professional 15, nonprofessional 1, total 16; part-time - professional 1, nonprofessional 0, total 1.

**INTERNAL PUBLICATIONS:** Technical reports; periodicals/journals; conference papers; standards and specifications.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; advisory and consulting services.

**OTHER SERVICES:** Conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** Government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## NATIONAL CARGO BUREAU, INC. (NCB)

**ADDRESS:** 1 World Trade Center  
Suite 2757  
New York, NY  
10048

**TELEPHONE:** (212) 432-1280

**DIRECTOR:** Sammis, Capt. S. F.

**YEAR INFORMATION SOURCE BEGAN:** 1952

**MISSION:** NCB Inc. is dedicated to the safe loading, storage, securing and unloading of cargo on all vessels and the safety of shipboard cargo handling gear through the application of uniform standards. Certificates issued by NCB may be accepted as prima facie evidence of compliance with the provisions of the Dangerous Cargo Act and the Rules and Regulations for Bulk Grain Cargo.

**SUBJECT SCOPE:** Dangerous materials; Containers and packaging.

**MAJOR SUBJECT TERMS:** Safety regulations; Hazardous materials; Shipping regulations; Cargo.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Active participation in the Inter-Governmental Maritime Consultative Organization serving on the Sub-Committee on the Carriage of Dangerous Goods; the Sub-Committee on Containers and Cargoes; the IMCO Code of Safe Practice for Bulk Cargoes such as ores and ore concentrates and similar cargo when carried in general cargo vessels; serves on the Technical and Research Committees of the Marine Section of the National Safety Council.

**SPECIAL SCOPE FEATURES:** The development of standards and specifications for the safe stowing and shipping of various types of cargoes. Consulting and advisory services also available for passenger, cargo, tank derrick barge and miscellaneous vessels.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Wilson, Capt. G. A.	Cargo; Shipping Regulations	(804) 622-2393
Dobson, Capt. R. C.	Cargo; Shipping Regulations	(504) 522-8400
Farnsworth, Capt. W. L.	Cargo; Shipping Regulations	(713) 224-5496
Currie, Capt. A. B.	Cargo; Shipping Regulations	(415) 982-0795
Miles, Capt. F. B.	Cargo; Shipping Regulations	(312) 646-2131

**STAFF:** Full-time - professional 5, nonprofessional 12, total 17; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; standards and specifications.

**HOLDINGS:** Reports and reprints; reference lists/bibliographies; standards and specifications.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## NATIONAL CENTER FOR HEALTH STATISTICS (NCHS)

**ADDRESS:** Health Resources Administration  
US Public Health Service  
5600 Fishers Lane  
Rockville, MD  
20852

**TELEPHONE:** (301) 443-1200

**DIRECTOR:** Margulies, H.

**PARENT-SPONSOR-HOST AFFILIATION:** Health Resources Administration, Public Health Service

**YEAR INFORMATION SOURCE BEGAN:** 1960

**MISSION:** To collect, analyze, and disseminate general purpose, vital, and health statistics and to develop health, demographic, and related statistics to serve present and future needs of all segments of health and related professions.

**SUBJECT SCOPE:** Physiology; Mathematics and statistics; Dangerous materials.

**MAJOR SUBJECT TERMS:** Consumer protection; Information retrieval; Physiology; Hazardous materials; Combustion; Medicine; Statistics.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Development and design of a publication which would function as an index to health topics covered in the Vital and Health Statistics Series in which data is presented according to demographic and socioeconomic variables.

**SPECIAL SCOPE FEATURES:** A professional staff, including statisticians, mathematical statisticians, physicians, dentists, demographers and sociologists, collects, analyzes and disseminates vital and health data in such areas as natality, mortality, marriage and divorce, morbidity, disability, and use of health services.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Zuyzda, M.	Statistics; Medicine	(301) 443-1616

**STAFF:** Full-time - professional 500, nonprofessional 0, total 500; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Technical reports; statistical compilations; reference lists/bibliographies; graphics/tabular materials; magnetic tape bibliographic data.

**HOLDINGS:** Reports and reprints; standards and specifications; statistical compilations.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; state-of-the-art reviews; advisory and consulting services; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Not available.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## NATIONAL FOREST PRODUCTS ASSOCIATION (NFPA)

**ADDRESS:** 1619 Massachusetts Avenue, NW  
Washington, DC  
20036

**TELEPHONE:** (202) 332-1050

**DIRECTOR:** Hedges, R. D.

**YEAR INFORMATION SOURCE BEGAN:** 1902

**MISSION:** NFPA is the representative of the forest industries on national issues concerning the growing, manufacture and use of solid wood products.

**SUBJECT SCOPE:** Industrial safety codes, specifications, standards, etc.; Structural materials limitations (metallic and nonmetallic; Construction equipment, materials and supplies; Wood products; Structural engineering.

**MAJOR SUBJECT TERMS:** Structural materials; Standards; Stress analysis; Fires; Structural engineering; Fire hazards; Fire prevention; Forest fires; Fire insurance.

**SPECIAL SCOPE FEATURES:** NFPA performs the following services: 1. Generates and supports legislation and programs to promote a continuing flow of both public and private timber to wood using industries; 2. Generates and supports legislation and programs to protect the timber base from excessive withdrawals for non-timber use; 3. Works with government agencies to formulate, monitor, and administer public and private forest programs; 4. Encourages government supported research to expand wood product markets, lower production costs and increase the volume and quality of timber available to meet the nation's wood fiber needs; 5. Evaluates and interprets pending legislation and events affecting the industry; 6. Arranges for forest industry spokesmen to testify on hearings affecting the industry; 7. Communicates industry policy on important legislation, programs and regulations to Congressmen, Congressional Committees, the White House and Executive Departments; 8. Works with model, state, county and local building code officials and with fire insurance officials to insure fair treatment in building regulations and fire insurance. 9. Provides technical assistance to Federal agencies in preparing, revising and reviewing government specifications and standards for wood products used in Federal construction programs; 10. Develops engineering and technical data for building code and fire insurance activities; 11. Sponsors the Wood Industry Careers Program to attract qualified young people to the wood industry; 12. Develops information programs aimed at Congress, the Administration and Executive Departments; 13. Participates in and helps lead the Forest Industries Council.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Hewett, F.	Information Retrieval	(202) 332-1050
Prange, G.	Information Retrieval	(202) 332-1050
Buchan, R.	Standards; Construction	(202) 332-1050
Hitchings, W.	Standards	(202) 332-1050
Holcombe, P.	Wood	(202) 332-1050
Purcell, F.	Fire Insurance	(202) 332-1050
King	Information Retrieval	(202) 332-1051

**INTERNAL PUBLICATIONS:** Technical reports; newsletters/trade literature; standards and specifications.

**HOLDINGS:** Standards and specifications.

DECEMBER 1975

## NATIONAL GEOPHYSICAL AND SOLAR-TERRESTRIAL DATA CENTER (NGSDC)

**ADDRESS:** National Oceanic and Atmospheric Administration  
Boulder, CO  
80302

**TELEPHONE:** (303) 499-1000 ext 6215

**DIRECTOR:** Shapley, A. H.

**PARENT-SPONSOR-HOST AFFILIATION:** National Oceanic & Atmospheric Administration

**YEAR INFORMATION SOURCE BEGAN:** 1957

**MISSION:** To conduct international exchange of geophysical and solar-terrestrial observations in accordance with the principles set forth by the International Council of Scientific Unions.

**SUBJECT SCOPE:** Earth sciences and oceanography; Extraterrestrial environmental hazards; Wave propagation.

**MAJOR SUBJECT TERMS:** Earth sciences; Cosmic rays; Electromagnetic radiation; Electromagnetic interference; Extraterrestrial environments; Environments.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Shapley, A. H.	Aerospace Engineering	(303) 499-1000 ext 6275
Lincoln, J. V.	Astronomy	(303) 499-1000 ext 6323
Heyers, H.	Earth Sciences	(303) 499-1000 ext 6521

**STAFF:** Full-time - professional 34, nonprofessional 35, total 69; part-time - professional 3, nonprofessional 35, total 38.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; indexes; technical reports; statistical compilations; graphics/tabular materials.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints 20,000; graphics/tables 5,000,000; statistical compilations 50; films and slides; range of years of total 1957-present.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
SFR	Solar Flare Reports	1884-	
ID	Ionosphere Data	1957-	
CRMS	Cosmic Ray M.S.	1969-1971	
GI (LEN)	Geomagnetic Indices (Lenhart)	1932-	
GI	Geomagnetic Indices (AE, DST, HV)	1901-	
SSP	Sun Spot Flux Reports	1969-	
MSL	Master Sta List (WDC-A)		1,000
CAT	Catalog (WDC-A)		4,000

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** On-site use of collection; reproduction/publication services.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfilm copy; microfiche copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; staff or members of affiliated organizations; government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services for reproduction of data.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## NATIONAL HIGHWAY TRAFFIC SAFETY ADMIN., TECHNICAL REFERENCE BRANCH (TRB-NHTSA)

**ADDRESS:** Technical Reference Branch  
400 Seventh Street, SW  
Washington, DC  
20590

**TELEPHONE:** (202) 426-2768

**DIRECTOR:** Desmond, Winifred F.

**YEAR INFORMATION SOURCE BEGAN:** 1967

**MISSION:** To serve as an access point for reports generated by NHTSA and related documents.

**SUBJECT SCOPE:** Safety analysis; Human factors engineering safety.

**MAJOR SUBJECT TERMS:** Highway safety; Transportation; Vehicles (land); Accident investigation; Accidents; Safety analysis; Safety regulations; Standards; Safety procedures.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Desmond, W. F.	Highway Safety	(202) 426-2768

**STAFF:** Full-time - professional 11, nonprofessional 7, total 18; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Book catalogs; handbooks/manuals; indexes; technical reports; reference lists/bibliographies; magnetic tape bibliographic data.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides; total number of titles 30,000.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
Highway safety literature (HSL)	Citations and Abstracts	1967-	17,000
Transportation Research Information Service (TRIS)	Citations and Abstracts	Various	
Lockheed Dialog	Citations and Abstracts	Various	

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; advisory and consulting services; referrals; bibliographic abstracts.

**OTHER SERVICES:** On-site use of collection; interlibrary loans.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfiche copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## NATIONAL INST. OF OCCUPATIONAL SAFETY AND HEALTH, TOXICOLOGY BRANCH

**ADDRESS:** National Institute of Occupational Safety and Health  
Toxicology Branch, USPHS  
1014 Broadway  
Cincinnati, OH  
45202

**TELEPHONE:** (513) 684-3544

**DIRECTOR:** Scheel, L. D.

**MISSION:** To investigate the effects on humans of hazards and toxic materials found in industry.

**SUBJECT SCOPE:** Toxicology; Dangerous materials; Hygiene and sanitation; Biology.

**MAJOR SUBJECT TERMS:** Toxicity; Hazardous materials; Industrial hygiene; Industrial safety; Physiological hazards.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Projects are conducted on studying the toxic effects on humans of materials and wastes found in industry.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Scheel, L. D.	Toxicity	(513) 684-3544

**HOLDINGS:** Reports and reprints.

DECEMBER 1975

## NATIONAL OCEANOGRAPHIC DATA CENTER (NODEC)

**ADDRESS:** 2001 Wisconsin Avenue N.W.  
Washington, DC  
20235

**TELEPHONE:** (202) 634-7510

**DIRECTOR:** Ochinero, R. V.

**PARENT-SPONSOR-HOST AFFILIATION:** National Oceanic and Atmospheric Administration

**YEAR INFORMATION SOURCE BEGAN:** 1961

**MISSION:** To acquire, process, exchange, store, and retrieve globally-oriented physical, chemical, and biological data and information related to oceanography, and to serve as a central depository for the nation's oceanographic data.

**SUBJECT SCOPE:** Extraterrestrial environmental hazards; Earth sciences and oceanography; Biology; Environmental biology; Radiobiology; Toxicology.

**MAJOR SUBJECT TERMS:** Oceanography; Life sciences; Earth sciences; Oxygen; Information retrieval; Extraterrestrial environments; Meteorology.

**SPECIAL SCOPE FEATURES:** Extensive services of a complete oceanographic data center.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Kuhn, R.	Physics; Chemistry	(202) 634-7217
Lewis, M.	Oceanography	(202) 634-7214
Collins, E.	Life Sciences	(202) 634-7215
Cooperman, A.	Meteorology	(202) 634-7394

**STAFF:** Full-time - professional 80, nonprofessional 32, total 112; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; indexes; technical reports; magnetic tape bibliographic data.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides; total number of titles 40,000.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
Oceanographic Station Data (SD) File	Nansen casts	1893-	549,793
Mechanical Bathymeterograph Data File (MBT)	Bathythermograph Data	1941-	782,204
Expendable Bathymeterograph Data File (XBT)		1962-	159,182
Surface Current Data Files (H1-9)	Surface Currents	1904-45	1,934,000
Netherlands 193 Environmental Data Index (ENDEX)	Surface Currents	1853-1931	1,260,293
Environmental Information Service (OASIS)	Environmental Data Base Directory	1850-	4,200
Oceanic & Atmospheric Information Service (OASIS)	Environmental Sciences and Marine and Coastal Resources	1774-	

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; state-of-the-art reviews; analytical studies; advisory and consulting services; referrals; bibliographic abstracts; scientific or statistical data retrieval/compilation.

NATIONAL OCEANOGRAPHIC DATA CENTER (NODC)

OTHER SERVICES: On-site use of collection; interlibrary loans; reproduction/publication services.

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Hard copy; microfilm copy; microfiche copy.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: Charge for some services to qualified users.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

NATIONAL SAFETY COUNCIL

ADDRESS: 425 North Michigan Avenue  
Chicago, IL  
60611

TELEPHONE: (312) 527-4800

DIRECTOR: Belkamp, R. G.

YEAR INFORMATION SOURCE BEGAN: 1914

MISSION: To develop, determine and evaluate methods and procedures to prevent accidents and reduce the fatalities, injuries and economic losses resulting from accidents; and to provide leadership for adoption and use of those methods and procedures that best serve the public interest.

SUBJECT SCOPE: Safety analysis; Behavioral and social sciences.

MAJOR SUBJECT TERMS: Safety analysis; Accidents; Accident prevention; Accident investigation; Aircraft safety.

RESEARCH AND DEVELOPMENT ACTIVITIES: The behavioral research staff conducts a variety of studies to define accident problems and evaluate the effectiveness of accident countermeasure programs.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Recht, J. L.	Statistics	(312) 527-4800

INTERNAL PUBLICATIONS: Books; handbooks/manuals; indexes; statistical compilations; periodicals/journals; newsletters/trade literature.

HOLDINGS: Statistical compilations; films and slides.

REFERENCE AND QUERY SERVICES: Questions answered individually.

PRICING AND SERVICES CHARGES: Charge for some services to qualified users.

DECEMBER 1975

## NAVAL AIR ENGINEERING CENTER (NAEC)

**ADDRESS:** Naval Air Engineering Center (NAEC)  
Lakehurst, NJ  
08733

**TELEPHONE:** (201) 323-2290

**DIRECTOR:** Kirby, D. L.

**PARENT-SPONSOR-HOST AFFILIATION:** Department of the Navy

**YEAR INFORMATION SOURCE BEGAN:** 1917

**MISSION:** To conduct programs of research, engineering, development, development test, systems integration, limited production, procurement, and fleet engineering support in aircraft launching, recovery, and landing aid systems, and ground support equipment for aircraft and airborne weapons systems. To support DOD standardization and specification programs. To provide aviation and other facilities in support of assigned programs and for other activities as designated by appropriate authority.

**SUBJECT SCOPE:** Aircraft problems; Reliability; Cryogenic safety; Fuels; Oils, lubricants and hydraulic fluids; Laboratories, test facilities and test equipment.

**MAJOR SUBJECT TERMS:** Ground support systems; Navigation aids; Fire fighting equipment; Cryogenic fluid safety; Fuels; Oils; Reliability; Recovery; Quality control; Corrosion; Tests; Test equipment; Propulsion system performance; Launching; Landing aids.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Conducts research and development in noise pollution analysis; NDT/I for engines; short field radar tests; containerization; oil analysis; noise suppression; hydraulics and fuels; cryogenic generation; corrosion control; high energy clutch, brake, and flywheel systems; V/STOL aircraft support; environmental protection; automated control of aircraft support, computer diagnostics, oil analysis studies; remotely piloted vehicles.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (X)
Kirby, D.	Physics	(201) 323-2290
O'Donnell,	Operations Research; Engineering	(201) 323-2391
Lata, E.	Management Systems Engineering	(201) 323-2330

**STAFF:** Full-time - professional 339, nonprofessional 683, total 1022; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Books; handbooks/manuals; technical reports; statistical compilations; newsletters/trade literature; standards and specifications; graphics/tabular materials.

**HOLDINGS:** Reports and reprints; periodicals; standards and specifications; graphics/tables; statistical compilations; films and slides.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; state-of-the-art reviews; analytical studies; advisory and consulting services; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Reproduction/publication services.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** Government employees; government contractors.

**USER RESTRICTIONS:** Federal security clearance.

**PRICING AND SERVICES CHARGES:** All services free to qualified users.

DECEMBER 1975

## NAVAL RESEARCH LABORATORY (NRL)

**ADDRESS:** 4555 Overlook Avenue SW  
Washington, DC  
20375

**TELEPHONE:** (202) 767-2357

**DIRECTOR:** Geary, J. T., Capt.

**PARENT-SPONSOR-HOST AFFILIATION:** Department of the Navy

**YEAR INFORMATION SOURCE BEGAN:** 1923

**MISSION:** To conduct a broadly-based multidisciplinary program of scientific research and advanced technological development directed toward new and improved materials, equipment, techniques, systems, and related operational procedures for the Navy.

**SUBJECT SCOPE:** Electronics and electrical engineering; Space technology; Physical oceanography; Communications; Metals; Physics; Mathematical sciences; Chemistry; Acoustics; Dangerous industrial radiation; Extraterrestrial environmental hazards; Propellants, fuels, lubricants, hydraulic fluid safety; Structural materials limitations (metallic and nonmetallic); Space vehicle problems.

**MAJOR SUBJECT TERMS:** Acoustics; Cosmic rays; Electromagnetic radiation; Fatigue (materials); Hydraulics; Lubricants; Propellants; Fuels; Information retrieval; Solar radiation; Reactor safety; Shock; Vibration; Electronics; Instruments; Nuclear radiation; Physics; Chemistry; Structural materials; Extraterrestrial environments.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Performs scientific research and development for Systems Commands and offices of the Navy, the Department of Defense and other agencies.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (X)
Baster, D. P.	Physics	(202) 767-2357

**INTERNAL PUBLICATIONS:** Books; handbooks/manuals; abstracts; indexes; technical reports; periodicals/journals; conference papers; reference lists/bibliographies.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides language tapes and microfiche.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
DIALOG	Journal literature		
SPIN	Physics journals		

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; advisory and consulting services; referrals; translations.

**OTHER SERVICES:** On-site use of collection; accession of new acquisition lists; interlibrary loans; reproduction/publication services.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfilm copy.

**USER QUALIFICATIONS:** Immediate staff or members; government employees; government contractors.

**USER RESTRICTIONS:** Federal security clearance.

**PRICING AND SERVICES CHARGES:** All services free to qualified users.

DECEMBER 1975

## NAVAL WEAPONS SUPPORT CENTER (NAVWPNSUPPCTR)

**ADDRESS:** Commanding Officer  
NAVWPNSUPPCTR  
Crane, IN  
47522

**DIRECTOR:** Marsischky, G. W.

**PARENT-SPONSOR-HOST AFFILIATION:** Department of the Navy; Indiana Univ.

**YEAR INFORMATION SOURCE BEGAN:** 1967

**MISSION:** To provide safety career development, education and training programs for Department of the Navy, military and civilian personnel in explosives, occupational transportation, systems, product, public, and general safety areas.

**SUBJECT SCOPE:** Man-machine hazards; Industrial safety manuals, codes, specifications, standards, etc.; Hygiene and sanitation; Fire, explosion and detonations; Safety analysis; Human factors engineering; Personnel development.

**MAJOR SUBJECT TERMS:** Human factors engineering; Safety analysis; Personnel development; Industrial hygiene; Explosives; Hazardous materials; Industrial safety.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Synthesize information from various sources of research data and publications in safety, systems analysis, management, science and engineering, medicine, law, and education to develop and maintain safety education and training programs consistent with the latest "state of the art."

**SPECIAL SCOPE FEATURES:** The NAVSEASYSCOM Safety School's expertise is in teaching the application of the principles of science and engineering, management, systems analyses, medicine, law, and human factors for the resolution of special safety hazards and safety risk management problems.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Marsischky, G. W.	Fire Protection; Education	(812) 854-1432
Carper, W. E.	Explosives	(812) 854-1432
Dean, A. N.	Industrial Safety; Industrial Hygiene	(812) 854-1432
Jacobs, T. L.	Product Safety	(812) 854-1432
Leach, T. M.	Systems Engineering; Human Factors	(812) 854-1432
Bowers, H. N.	Engineering Education	(812) 337-6325

**STAFF:** Full-time - professional 13, nonprofessional 3, total 16; part-time - professional 0, nonprofessional 4, total 4.

**INTERNAL PUBLICATIONS:** Reference lists/bibliographies.

**HOLDINGS:** Books; reports and reprints; periodicals; standards and specifications; films and slides; total number of titles 4,000.

**REFERENCE AND QUERY SERVICES:** Advisory and consulting services; referrals.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Not available.

**USER QUALIFICATIONS:** Immediate staff or members; government employees; government contractors.

**USER RESTRICTIONS:** Federal security clearance.

**PRICING AND SERVICES CHARGES:** Charge for non-government users.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## NEW YORK UNIV., CENTER FOR SAFETY

**ADDRESS:** Washington Square  
New York, NY  
10003

**TELEPHONE:** (212) 598-2156 (212) 598-2158 (212) 598-2157 (212) 598-2959

**DIRECTOR:** Grimaldi, J. V.

**YEAR INFORMATION SOURCE BEGAN:** 1938

**MISSION:** To help the community, business and industry to reduce losses and the harmful effects or hazards; to identify areas where safety problems and technology voids exist and to initiate research programs both in-house and on contract in these problem areas; to provide safety specialists for leadership in business, industry, government, education and military; to offer instruction for advanced degrees as well as non-degree specialist training.

**SUBJECT SCOPE:** Safety analysis; Industrial safety; Nuclear safety; Safety engineering; Dangerous materials; Psychology; Environmental biology; Mathematics and statistics; Behavioral and social sciences; Man-machine hazards; Operations research; Dangerous industrial radiation; Fire, explosion and detonations; Cryogenic safety; Bioengineering.

**MAJOR SUBJECT TERMS:** Industrial safety; Industrial hygiene; Safety analysis; Systems engineering; Safety engineering; Highway safety; Fire hazards; Reactor safety; Psychology; Physiological hazards; Human factors engineering; Hazardous materials; Structural engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Performs safety related research projects on contract to industry and government, including traffic safety program management, analysis of vehicle behavior in the presence and absence of billboards, use of optical sound motion pictures in driving while intoxicated arrest cases, personal factors in safe operation of motor vehicles; occupational biomechanics, biomechanics of lifting and material handling, use of biomechanical profiles in work measurement, electromyographic kinesiology in the analysis of work situations and hand tools, ergonomic evaluation of a redesigned surgical instrument, antihistamine effects on motor skills and vigilance; evaluation of state industrial safety codes; development of a critical review of the literature pertaining to childhood accidents; delayed alcohol effects on work safety.

**SPECIAL SCOPE FEATURES:** The Center's expertise is safety science and education in the areas of management, occupational safety and health, systems safety engineering, safety analysis, hazard control, traffic safety, evaluation of safety manuals, codes and specifications, industrial hygiene, military safety, psychology of hazard control. Research is being pursued in perceptual and cognitive capability during hangover; psychogenic effects of air ions; occupational biomechanics and ergonomics; traffic safety; nuclear safeguards and security. Co-publisher of Safety Science Abstracts.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Grimaldi, J. V.	Safety Engineering; Industrial Hygiene	(212) 598-2159
Slote, L.	Human Factors Engineering; Systems Engineering	(212) 598-2156
Tichauer, E. R.	Human Factors Engineering; Safety Engineering	(212) 679-3200 ext 2196
Elkow, J. D.	Education; Traffic Safety; Safety Engineering	(212) 598-2156
Courtenay, I.	Industrial Hygiene	(212) 598-2156
Flato, J. C.	Industrial Hygiene; Industrial Safety	(212) 598-3698
Dalton, W. F.	Industrial Hygiene; Industrial Safety; Systems Engineering	(212) 598-2156
Gordon, J. R.	Traffic Safety	(212) 598-2156
Rolnick, B.	Legal Liability	(212) 598-2156
Smulevitz, A. R.	Legal Liability	(212) 598-2156
Lipson, M.	Security	(212) 598-2156
Karaghevzoff, T.	Traffic; Traffic Safety	(212) 598-2156

**STAFF:** Full-time - professional 7, nonprofessional 4, total 11; part-time - professional 30, nonprofessional 0, total 30.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports.

NEW YORK UNIV., CENTER FOR SAFETY

HOLDINGS: Books; abstracts/indexes; reports and reprints; periodicals.

REFERENCE AND QUERY SERVICES: Questions answered individually; retrospective searches; selective dissemination of information; state-of-the-art reviews; analytical studies; advisory and consulting services; experimental studies.

OTHER SERVICES: Courses/workshops; conferences/symposiums.

USER QUALIFICATIONS: Government employees; government contractors; industry.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: Charge for some services to qualified users.

DECEMBER 1975

## NONDESTRUCTIVE TESTING DATA SUPPORT CENTER (NTDSC)

**ADDRESS:** Southwest Research Institute  
8500 Culebra Road  
Post Office Drawer 28510  
San Antonio, TX  
78284

**TELEPHONE:** (512) 684-5111

**DIRECTOR:** Gardner, C. G.

**PARENT-SPONSOR-HOST AFFILIATION:** Defense Supply Agency; Southwest Research Institute

**YEAR INFORMATION SOURCE BEGAN:** 1974

**MISSION:** To serve the nondestructive testing informational needs of the US Government and industrial community, with emphasis on the requirements of the Department of Defense agencies, contractors and grantees, and other US Government agencies and their contractors. The Services are also available to the private sector.

**SUBJECT SCOPE:** Laboratories, test facilities and test equipment; Reliability; Metals; Composite materials; Structural materials limitations (metallic and nonmetallic); Optics; Acoustics; Ceramics.

**MAJOR SUBJECT TERMS:** Nondestructive evaluation; Information retrieval; Nuclear radiation; X-rays; Structural materials; Acoustics; Electromagnetic radiation; Materials; Magnetic properties; Quality control.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** No research and development projects are initiated by NTDSC. Research and development services are available to NTDSC users. The following technical reports were generated by NTDSC: 1) Technology Assessment of Electromagnetic-Acoustic Transducer Technology; 2) State of the Art Survey on Ultrasonic Testing; and 3) Proceedings of AFML Residual Stress Workshop.

**SPECIAL SCOPE FEATURES:** The field of nondestructive testing embodies the entire spectrum of controlled material-energy interaction phenomena which may be used to evaluate the integrity of a material without impairing its serviceability. NTDSC maintains files of up-to-date technical data and information on the techniques, instruments, data processing and interpretation and standards employed for this purpose.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. [x]
Gardner, C. G.	Information Retrieval; Nondestructive Evaluation	(515) 684-5111 ext 2737
King, A. R.	Information Retrieval; Nondestructive Evaluation	(515) 684-5111 ext 2361

**STAFF:** Full-time - professional 3, nonprofessional 2, total 5; part-time - professional 2, nonprofessional 0, total 2.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; newsletters/trade literature; conference papers; reference lists/bibliographies.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
NTFILE	NTDSC technical reports	1960-present	10,000
TRFILE	DDC technical reports	1953-present	
WUFILE	File of current DOD contracts and projects	current only	

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; state-of-the-art reviews; advisory and consulting services; referrals; bibliographic abstracts.

**OTHER SERVICES:** On-site use of collection; conferences/symposiums.

NONDESTRUCTIVE TESTING, DATA SUPPORT CENTER (NDTSC)

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Not available.

USER QUALIFICATIONS: General technology community; government employees; government contractors.

USER RESTRICTIONS: Federal security clearance.

PRICING AND SERVICES CHARGES: Charge for some services to qualified users.

DECEMBER 1975

NORTHERN ARIZONA UNIV., DEPT. OF PHYSICS

ADDRESS: Code 111184  
Box 6010  
Northern Arizona University  
Flagstaff, AZ  
86001

TELEPHONE: (602) 523-2661

DIRECTOR: Willis, W. R.

SUBJECT SCOPE: Astronomy; Astrophysics; Optical detection; Optics; Extraterrestrial environmental hazards.

MAJOR SUBJECT TERMS: Astronomy; Physics; Electromagnetic interference; Extraterrestrial environments.

RESEARCH AND DEVELOPMENT ACTIVITIES: New areas of research include studies of Lunar normal albedo and Heiligenschein using both Apollo photography and Earth-based astronomical photometry, leading to a digital file of Albedo and Heiligenschein surge; development of digital image processing methods for in-core operator-independent automated photogrammetry; development of generalization of monoscopic photoclinometry useable with arbitrary photometric functions; additional studies in radiative transfer in porous airless media; and work on Martian wind systems.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Wildey, R. L.	Astronomy	(602) 523-2661

DECEMBER 1975

NORTHWESTERN UNIVERSITY TECHNOLOGICAL INST., DESIGN AND DEVELOPMENT CENTER

ADDRESS: Technological Institute  
Northwestern University  
Evanston, IL  
60201

TELEPHONE: (312) 492-3668

DIRECTOR: Rath, G. J.

SUBJECT SCOPE: Human factors engineering; Industrial processes; Behavioral and social sciences.

MAJOR SUBJECT TERMS: Human factors engineering; Industrial safety.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Rath, G. J.	Human Factors Engineering; Engineering Management	(312) 492-3668

DECEMBER 1975

NORTHWESTERN UNIV., TRANSPORTATION CENTER LIBRARY

ADDRESS: 1810 Hinman Avenue  
Evanston, IL  
60204

TELEPHONE: (312) 492-5273

DIRECTOR: Jacobson, B.

YEAR INFORMATION SOURCE BEGAN: 1957

MISSION: To serve the staffs of its two supporting organizations, the Transportation Center and the Traffic Institute, as well as Northwestern University students and faculty and others concerned with research in and study of transportation.

SUBJECT SCOPE: Safety analysis; Operations research; Air facilities.

MAJOR SUBJECT TERMS: Transportation; Highway safety; Railroads; Aircraft safety; Operations research; Safety analysis.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Jacobson, B.	Information Retrieval	(312) 492-5273

STAFF: Full-time - professional 5, nonprofessional 6, total 11; part-time - professional 0, nonprofessional 0, total 0.

INTERNAL PUBLICATIONS: Abstracts; indexes; reference lists/bibliographies.

HOLDINGS: Books and pamphlets - 70,444; abstracts/indexes; periodicals 1,000; reference lists/bibliographies.

REFERENCE AND QUERY SERVICES: Referrals; custom abstracting and indexing services; copying; state of the art compilation.

OTHER SERVICES: Interlibrary loans.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: Charge for user outside organization.

DECEMBER 1975

## NUCLEAR REGULATORY COMMISSION, OFFICE OF INSPECTION AND ENFORCEMENT

**ADDRESS:** Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, DC  
20585

**TELEPHONE:** (301) 492-7473

**DIRECTOR:** Knuth, D. F.

**YEAR INFORMATION SOURCE BEGAN:** 1954

**MISSION:** To inspect licensees of nuclear facilities, byproduct nuclear materials, and special nuclear materials for the health and safety aspects of their operations. In addition the protection of licensed special nuclear materials from unauthorized uses are also inspected as appropriate for conformance with Federal requirements of rules or license conditions.

**SUBJECT SCOPE:** Nuclear safety; Nuclear shielding and protection; Physiology.

**MAJOR SUBJECT TERMS:** Reactor safety; Physiological hazards; Inspection.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Recommends research and development activities related to improving inspection techniques. Also sponsor development work related to improved analytical services performed by inspection personnel in the discharge of their activities.

**SPECIAL SCOPE FEATURES:** Nuclear industry inspections include onsite construction, operations, health physics, environmental safeguards, and vendor associated activities. Also conducts investigations of incidents or accidents at licensed facilities.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Knuth, D. F.	Reactor Safety	(301) 492-7397

**STAFF:** Full-time - professional 300, nonprofessional 100, total 400; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Technical reports; statistical compilations; newsletters/trade literature.

**HOLDINGS:** Reports and reprints; standards and specifications.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; advisory and consulting services; referrals.

**OTHER SERVICES:** On-site use of collection.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Not available.

**USER QUALIFICATIONS:** Staff or members of affiliated organizations.

**USER RESTRICTIONS:** Federal security clearance.

**PRICING AND SERVICES CHARGES:** All services free to qualified users.

DECEMBER 1975

## OAK RIDGE ASSOCIATED UNIV., RADIATION EMERGENCY ASSISTANCE CENTER/TRAINING SITE (REAC/TS)

**ADDRESS:** Oak Ridge Associated Universities  
REAC-TS Registry Office  
Box 117  
Oak Ridge, TN  
37830

**TELEPHONE:** (615) 483-8411 (Day) or (615) 483-6351 (Night)

**DIRECTOR:** Lushbaugh, C. C.

**PARENT-SPONSOR-HOST AFFILIATION:** Energy Research and Development Administration

**YEAR INFORMATION SOURCE BEGAN:** 1975

**MISSION:** To assist ERDA, its contractors, and the general nuclear industry in training physicians, nurses, and paramedical emergency personnel in radiation-accident management, and treating irradiated and contaminated persons; to maintain and update a Human Radiation-Accident Data Bank which includes follow-up studies of radiation-accident survivors.

**SUBJECT SCOPE:** Radiobiology; Dangerous industrial radiation; Radioactivity; Nuclear safety; Personnel training.

**MAJOR SUBJECT TERMS:** Irradiation; Ionizing radiation; Reactor safety; Nuclear radiation; Radiation; Accidents; Personnel development; Education.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** To maintain a computerized system of Radiation Registries containing were possible the actual clinical histories and records of follow-up of the course and fate of individual radiation-accident victims and survivors, and data on the nature and causes of radiation accident. A special data bank, developed through the combined support of ERDA and the National Aeronautics and Space Administration (NASA), contains the clinical records of about 3000 patients who received therapeutic total-body irradiation well documented in terms of radiation physics, dosimetry, and hematology.

**SPECIAL SCOPE FEATURES:** REAC/TS staff expertise allows for special programs of cooperation with other ERDA contractors on Health Assessment of Reactor Site Committees, long-term follow up and comparative studies of the morbidity and mortality of atomic workers who in the past were occupationally exposed to plutonium.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Lushbaugh, C. C.	Medicine	(615) 483-8411 ext 215
Hubner, K.	Medicine	(615) 483-8411 ext 285
Ricks, R. C.	Accidents; Statistics	(615) 483-8411 ext 275
Cloutier, R. J.	Education	(615) 483-8411 ext 263
Beck, W. L.	Education	(615) 483-8411 ext 263
Berger, J. D.	Reactor Safety	(615) 483-8411 ext 333

**STAFF:** Full-time - professional 5, nonprofessional 7, total 12; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; reference lists/bibliographies; reprints.

**HOLDINGS:** Reports and reprints; reference lists/bibliographies; statistical compilations.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; advisory and consulting services.

**OTHER SERVICES:** Courses/workshops.

**USER QUALIFICATIONS:** Ad hoc permission.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## OAK RIDGE NATIONAL LABORATORY, HEALTH PHYSICS DIVISION (ORNL)

ADDRESS: ORNL, PO Box X  
Oak Ridge, TN  
37830

DIRECTOR: Auxier, J. A.

YEAR INFORMATION SOURCE BEGAN: 1963

MISSION: To research and develop new dosimetry concepts which will provide new or improved measuring devices for characterizing radiation fields in which human exposure might occur.

SUBJECT SCOPE: Dangerous industrial radiation; Radioactivity; Isotopes; Nuclear instrumentation; Miscellaneous detection.

MAJOR SUBJECT TERMS: Radioactive isotopes; Detectors; Radiation; Irradiation; Reactor safety; Nuclear radiation; Environments; Ionizing radiation.

RESEARCH AND DEVELOPMENT ACTIVITIES: Design and test new types of dosimeter and dosimetry techniques under laboratory and field conditions, build appropriate readers, prepare and distribute standardized dosimeters and to organize dosimetry intercomparison studies at a national and international level.

## STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Gammage, R. B.	Dosimeters	(615) 483-8611 ext 3-1592
Thorngate, J.	Spectroscopy	(615) 483-8611 ext 3-1592
Heywood, F. E.	Radioactive Isotopes	(615) 483-8611 ext 3-1592

STAFF: Full-time - professional 17, nonprofessional 9, total 26; part-time - professional 6, nonprofessional 0, total 6.

INTERNAL PUBLICATIONS: Technical reports; annual reports; critical reviews; reference lists/bibliographies.

HOLDINGS: Books; abstracts/indexes; reports and reprints; periodicals; standards and specifications.

REFERENCE AND QUERY SERVICES: Questions answered individually; selective dissemination of information; state-of-the-art reviews; advisory and consulting services; referrals.

OTHER SERVICES: Courses/workshops; conferences/symposiums; dosimetry intercomparison meetings.

USER RESTRICTIONS: None (unclassified material).

PRICING AND SERVICES CHARGES: All services free to qualified users (charges for some materials).

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

OFFICE OF HAZARDOUS MATERIALS (OHM)

ADDRESS: 2100 Second St. S.W.  
Washington, DC  
20590

TELEPHONE: (202) 426-0656

DIRECTOR: Roberts, A. I.

PARENT-SPONSOR-HOST AFFILIATION: Department of Transportation

YEAR INFORMATION SOURCE BEGAN: 1970

MISSION: To coordinate the development of regulations and issuance of notices of proposed rule-making for transportation of hazardous materials by all modes of transport except bulk shipments by water; to conduct compliance inspections of shippers of hazardous materials and manufacturers of specification packages used in shipments of hazardous materials; to maintain the central reporting system for hazardous materials; and to conduct training programs for shippers and carriers of hazardous materials.

SUBJECT SCOPE: Dangerous materials; Ground transportation equipment; Cryogenic safety.

MAJOR SUBJECT TERMS: Cryogenic fluid safety; Liquified gases; Transportation; Shipping regulations; Accident investigation; Hazardous materials; Fire fighting; Safety regulations; Fluorine.

RESEARCH AND DEVELOPMENT ACTIVITIES: Conducts research in packaging, hazardous materials classification and information and service failures.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Burns, W. J.	Chemical Engineering	(202) 426-0656
Newmark, H.	Fluorine	(202) 426-0656

STAFF: Full-time - professional 28, nonprofessional 11, total 39; part-time - professional 0, nonprofessional 0, total 0.

HOLDINGS: Reports and reprints; reference lists/bibliographies; standards and specifications.

REFERENCE AND QUERY SERVICES: Questions answered individually; state-of-the-art reviews; scientific or statistical data retrieval/compilation.

OTHER SERVICES: Conferences/symposiums.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: All services free to qualified users.

DECEMBER 1975

**OHIO STATE UNIV., AVIATION MEDICINE RESEARCH LABORATORY**

**ADDRESS:** The Ohio State University  
400 W 12 Avenue  
Columbus, OH  
43201

**TELEPHONE:** (614) 422-3821

**DIRECTOR:** Wick, R. L.

**YEAR INFORMATION SOURCE BEGAN:** 1960

**MISSION:** Training physicians in the art and science of aerospace medicine; research into the man machine interface; and consultation service to the aviation industry in the area of pilot physical evaluation and aeromedical standards.

**SUBJECT SCOPE:** Man-machine hazards; Physiology; Human factors engineering.

**MAJOR SUBJECT TERMS:** Aerospace medicine; Medicine; Human factors engineering; Accident investigation.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Current projects include studies into the effects of learning on pilot coordination tasks in fixed and rotary winged aircraft; pilot incapacitation rates and causes; and the effects of ethanol and drugs on pilot performance and flight.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Wick, R. L.	Aerospace Medicine	(614) 422-3821
Ellingson, H. V.	Aerospace Medicine	(614) 422-3821
Whitehead, E. J.	Aerospace Medicine	(614) 422-3821

**STAFF:** Full-time - professional 2, nonprofessional 2, total 4; part-time - professional 6, nonprofessional 0, total 6.

**REFERENCE AND QUERY SERVICES:** Advisory and consulting services.

**USER QUALIFICATIONS:** General technology community Aeromedical community.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

**OHIO STATE UNIV. PHYSIOLOGICAL FLUID MECHANICS RESEARCH GROUP (PFM)**

**ADDRESS:** Bio-medical Engineering Center  
Room G50, Sisson Hall  
1900 Coffey Road  
Columbus, OH  
43210

**TELEPHONE:** (614) 422-9524; (614) 422-8122

**DIRECTOR:** Nerem, R. M.

**MISSION:** The PFM Research Group consists of faculty members, graduate students, and staff operating with each other in the interdisciplinary study of fluid mechanics related problems in physiology and biology.

**SUBJECT SCOPE:** Man-machine hazards; Bioengineering; Physiology; Stress physiology; Fluid mechanics; Biology.

**MAJOR SUBJECT TERMS:** Medicine; Physiology; Physiological hazards; Fluid mechanics; Aerospace medicine.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Current projects include: cardiovascular, renal and respiratory effects of high intensity, intermediate duration, low frequency vibration; and other projects dealing with fluid mechanics and physiology.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Nerem, R. M.	Aerospace Engineering	(614) 422-9524
Hamlin, R. L.	Physiology	(614) 422-6031
Donnerberg, P. L.	Medicine	(614) 422-6031
Karayannacos, P. E.	Medicine	(614) 422-6031

**STAFF:** Full-time - professional 4, nonprofessional 1, total 5; part-time - professional 14, nonprofessional 5, total 19.

**INTERNAL PUBLICATIONS:** Technical reports.

**HOLDINGS:** Reports and reprints.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; staff or members of affiliated organizations; ad hoc permission; government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## OIL AND HAZARDOUS MATERIAL TECHNICAL ASSISTANCE DATA SYSTEM (OHM-TADS)

**ADDRESS:** Pacific Northwest Laboratory  
Battelle Memorial Institute  
P.O. Box 999  
Richland, WA  
99352

**TELEPHONE:** (509) 946-2665

**DIRECTOR:** Dawson, G.

**PARENT-SPONSOR-HOST AFFILIATION:** Battelle Memorial Inst.

**YEAR INFORMATION SOURCE BEGAN:** 1972

**MISSION:** The Oil and Hazardous Materials Technical Assistance Data System is an automated information retrieval file designed to facilitate rapid retrieval of information on more than 900 oils and hazardous materials. The system is of great value for both on-line response to spill incidents and for summary evaluations relating to direct enforcement and research activities. Information retrieval for spills of known and unknown materials is available.

**SUBJECT SCOPE:** Dangerous materials/Cryogenic safety.

**MAJOR SUBJECT TERMS:** Information retrieval; Hazardous materials; Oils; Waste disposal; Cryogenic fluid safety; Reactor safety; Toxicity; Accidents.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Update to 1975 includes in-house generation of aquatic toxicity data.

**SPECIAL SCOPE FEATURES:** The OHM-TADS system includes a wide variety of physical, chemical, biological, toxicological, air, land, and commercial information on oil and hazardous materials with the greatest emphasis being placed on the deleterious effects these materials may have on water quality.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Dawson, G.	Hazardous Materials	(509) 946-2665

**STAFF:** Full-time - professional 6, nonprofessional 22, total 28; part-time - professional 0, nonprofessional 0, total 0.

**Holdings:** Books; reports and reprints; periodicals.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
OHM-TADS	Hazardous Material	to 1975	850

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; advisory and consulting services.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## OLD DOMINION UNIV., PERFORMANCE ASSESSMENT LABORATORY (PAL)

**ADDRESS:** Department of Psychology  
Old Dominion University  
Norfolk, VA  
23508

**TELEPHONE:** (804) 489-6535

**DIRECTOR:** Alluisi, E. A.

**YEAR INFORMATION SOURCE BEGAN:** 1974

**MISSION:** To plan and conduct research concerning man's performance capabilities and the effects of temporal, environmental, and organismic stresses on complex human performance. Particular emphasis is given to investigations of work behavior and the extent to which sustained performance is influenced by stress. Interdisciplinary programs of research and teaching are fostered in areas related to the biological, engineering, industrial, physiological, psychological, and social aspects of performance.

**SUBJECT SCOPE:** Psychology; Human factors engineering; Behavioral and social sciences; Stress physiology; Physiology; Toxicology.

**MAJOR SUBJECT TERMS:** Human factors engineering; Industrial safety; Stress analysis; Vibration; Noise (sound); Personnel development; Personnel selection; Psychology; Information retrieval; Human performance.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Research is conducted on the effects of stresses such as illness, continuous work, noise, sleep loss, and vibration on human performance and passenger ride quality.

**SPECIAL SCOPE FEATURES:** The synthetic-work approach employed by PAL has been employed successfully for 15 years to measure the effects of various stresses on complex work performance. The multiple task performance battery (MTPB) which provides for the assessment of work behavior is one of the only three such batteries currently employed in performance assessment research.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Adkins, C. J.	Human Performance	(804) 489-6294
Alluisi, E. A.	Human Performance	(804) 489-6535
Bernardin, H. J.	Human Performance	(804) 489-6535
Coates, G. D.	psychology; Human Performance	(804) 489-6535
Gillen, H. B.	psychology	(804) 489-6294
Kirby, R. H.	Human Performance	(804) 489-6535
Mikulka, P. J.	Human Performance	(804) 489-6535
Morgan, B. B.	Human Performance; Human Factors Engineering	(804) 489-6535

**STAFF:** Full-time - professional 10, nonprofessional 0, total 10; part-time - professional 8, nonprofessional 0, total 8.

**INTERNAL PUBLICATIONS:** Abstracts; technical reports; periodicals/journals.

**HOLDINGS:** Books; reports and reprints; periodicals; reference lists/bibliographies.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; advisory and consulting services; referrals.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**USER QUALIFICATIONS:** General technology community.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## PENNSYLVANIA STATE UNIV., APPLIED RESEARCH LABORATORY

**ADDRESS:** Penn State University  
Applied Research Laboratory  
PO Box 30  
State College, PA  
16801

**TELEPHONE:** (814) 865-1395

**DIRECTOR:** Johnson, J. C.

**PARENT-SPONSOR-HOST AFFILIATION:** Dept. of the Navy

**YEAR INFORMATION SOURCE BEGAN:** 1965

**MISSION:** To support the Department of the Navy and its contractors in the general area of torpedoes, including safety. Use of wide range of technical experience from other academic departments of the University.

**SUBJECT SCOPE:** Combustion and ignition; Fuels; Operations research.

**MAJOR SUBJECT TERMS:** Explosives; Fuels; Propulsion; Combustion; Fires.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Power sources for propulsion, structural failures under high pressure, handling and storage safety. University has wide range of combustion projects in fuels.

**SPECIAL SCOPE FEATURES:** Special facilities available include combustion laboratory, high velocity water tunnels, high pressure test facilities, large computer center, cryographic facilities, and reactor.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Kiely, D.	Propellants; Fuels	(814) 865-7505
Key, C.	Explosives	(814) 865-3485
Eissenhuth, R.	Combustion	(814) 865-1741
Faeth, G.	Combustion	(814) 865-3743
Bland, R.	Fires	(814) 865-5467

**STAFF:** Full-time - professional 212, nonprofessional 78, total 290; part-time - professional 0, nonprofessional 71, total 71.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; abstracts; indexes; technical reports; conference papers; reference lists/bibliographies.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; films and slides; total number of titles 22,000.

**REFERENCE AND QUERY SERVICES:** Analytical studies; advisory and consulting services; custom abstracting and indexing services.

**OTHER SERVICES:** On-site use of collection; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## PENNSYLVANIA STATE UNIV., LABORATORY FOR HUMAN PERFORMANCE RESEARCH

**ADDRESS:** 119 Noll Laboratory  
Pennsylvania State University  
University Park, PA  
16802

**TELEPHONE:** (814) 865-3453

**DIRECTOR:** Buskirk, E. R.

**MISSION:** To investigate various aspects of the man-environment complex in order to better understand man's tolerance of environmental stress, his physiological and behavioral limits, and his potential for inducing beneficial change in himself or his environment to increase his productivity or improve the quality of his life style.

**SUBJECT SCOPE:** Bioengineering; Escape, rescue and survival; Life support; Physiology; Protective equipment; Stress physiology.

**MAJOR SUBJECT TERMS:** Physiology; Physiological hazards; Escape systems; Rescue operations; Protective equipment; Survival; Breathing apparatus; Human performance; Human factors engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Fields of research include: obesity; respiratory and circulatory responses of miners to emergency; evaluation of heat stress; exercise stress testing; physiological consequences of aging; physical conditioning; and prevention of coronary heart disease.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Buskirk, E. R.	Physiology	(814) 865-3453
Kamon, E.	Physiology; Human Factors Engineering	(814) 863-0045; (814) 865-3453
Barlett, L.	Physiology	(814) 865-3453
Gahagan, H.	Physiology	(814) 865-3453; (814) 863-0768
Hodgson, J.	Physiology	(814) 865-3453; (814) 865-4302
Kollias, J.	Physiology	(814) 865-3453; (814) 865-3653
Loomis, J.	Physiology	(814) 865-3453
Mendez, J.	Physiology	(814) 865-3453; (814) 863-0057
Nicholas, W. C.	Physiology	(814) 865-3453; (814) 865-7103

**INTERNAL PUBLICATIONS:** Technical reports.

DECEMBER 1975

PHASE DIAGRAMS FOR CERAMISTS

ADDRESS: National Bureau of Standards  
Washington, DC  
20234

TELEPHONE: (301) 921-3842

DIRECTOR: Cook, L.

PARENT-SPONSOR-HOST AFFILIATION: National Bureau of Standards; American Ceramic Society, Inc.

YEAR INFORMATION SOURCE BEGAN: 1933

MISSION: To collect phase diagrams of inorganic non-metallic, generally non-aqueous systems, and periodically publish them for the benefit of scientists and engineers in the various disciplines, who need and use such information.

SUBJECT SCOPE: Ceramics, refractories and glass; Inorganic chemistry; Physical and general chemistry; Miscellaneous materials.

MAJOR SUBJECT TERMS: Physical properties; Chemical properties; Ceramics; Standards; Refractories; Glass.

RESEARCH AND DEVELOPMENT ACTIVITIES: In the volume presently being compiled, commentaries will be provided for each diagram, covering sources and purity of materials, methods, standards and physical properties data given in the references.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Cook, L.	Chemistry	(301) 921-3842

INTERNAL PUBLICATIONS: Handbooks/manuals; standards and specifications.

HOLDINGS: Abstracts/indexes; reports and reprints; periodicals; private communications; patents.

REFERENCE AND QUERY SERVICES: Questions answered individually; retrospective searches; referrals; data collection; cooperative programs.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: All services free to qualified users.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

**PICATINNY ARSENAL, SCIENTIFIC AND TECHNICAL INFORMATION DIVISION (STINFO)**

**ADDRESS:** ATTN: SARDI-TS-S, Building 59  
Dover, NJ  
07801

**TELEPHONE:** (201) 328-2914

**DIRECTOR:** Varieur, N. L.

**PARENT-SPONSOR-HOST AFFILIATION:** Dept. of the Army

**YEAR INFORMATION SOURCE BEGAN:** 1929

**MISSION:** To serve as the technical library, technical museum and technical exhibits for the scientists and engineers in research and development technology and engineering at Picatinny Arsenal and to act as the principal US Army depository of publications and documents on ammunition, nuclear weapons, and related items.

**SUBJECT SCOPE:** Ammunition, explosives and pyrotechnics; Plastics; Fire, explosion and detonations; Physics; Chemistry; Electronics and electrical engineering; Navigation, communications, detection and countermeasures; Weapon effects; Propulsion, engines and fuels; Ordnance.

**MAJOR SUBJECT TERMS:** Physics; Operations research; Explosives; Information retrieval; Propellants; Pyrotechnics; Plastics; Lasers; Chemistry; Electronics.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Varieur, N. L.	Information Retrieval	(201) 328-2914

**STAFF:** Full-time - professional 19, nonprofessional 16, total 35; part-time - professional 0, nonprofessional 1, total 1.

**INTERNAL PUBLICATIONS:** Technical reports; newsletters/trade literature (bulletins).

**HOLDINGS:** Books 46,000; abstracts/indexes; reports and reprints 150,000; periodicals (bound - 18,000); reference lists/bibliographies; standards and specifications; total number of titles (periodicals) - 14,000.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
Defense RDT and E On-Line System (DDC)	Reports on completed RDT and E efforts; summary work units on ongoing RDT and E efforts.	1951-to date	764,000 reports, 75,000 work units, 10,000 planning summaries

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; referrals; bibliographic abstracts; translations.

**OTHER SERVICES:** On-site use of collection; accession of new acquisition lists; interlibrary loans; reproduction/publication services; courses/workshops.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Microfiche copy 350,000.

**USER QUALIFICATIONS:** Ad hoc permission; government employees; government contractors.

**PRICING AND SERVICES CHARGES:** All services free to qualified users.

DECEMBER 1975

PICKLESIMER, M.L., CONSULTANT

ADDRESS: 410 Kramer Drive  
Vienna, VA  
22180

SUBJECT SCOPE: Metals; Mechanics of structural failure; Nuclear safety.

MAJOR SUBJECT TERMS: Zirconium; Titanium; Failure; Reactor safety.

SPECIAL SCOPE FEATURES: Technical expertise in areas of failure analysis includes LNG, NG, pipe lines, propane cylinders, fluorescent light suspension tubes, components of gas explosions and the metallurgy of alloys pertinent to nuclear reactor technology.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Picklesimer, M. L.	Failure Analysis; Safety Analysis	(301) 973-4345

REFERENCE AND QUERY SERVICES: Questions answered individually and selectively.

USER QUALIFICATIONS: Government employees; government contractors.

PRICING AND SERVICES CHARGES: All services free to qualified users.

DECEMBER 1975

## PLASTICS TECHNICAL EVALUATION CENTER (PLASTEC)

**ADDRESS:** Picatinny Arsenal  
Dover, NJ  
07801

**TELEPHONE:** (201) 328-4222

**DIRECTOR:** Pebly, H. E.

**PARENT-SPONSOR-HOST AFFILIATION:** Department of Defense

**YEAR INFORMATION SOURCE BEGAN:** 1960

**MISSION:** To evaluate and disseminate technical information on current development, engineering and application of work in the field of plastics, adhesives, and reinforced plastics.

**SUBJECT SCOPE:** Composite materials; Adhesives and seals; Plastics; Materials; Chemistry; Industrial processes; Containers and packaging.

**MAJOR SUBJECT TERMS:** Information retrieval; Plastics; Elastomers; Materials; Adhesives; Electronics; Chemistry; Composite materials.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Generates data for inclusion in MIL-HDBK-17A, Plastics for Aerospace Vehicles; prepares state-of-the-art reports which may, by synthesis, generate new data from existing data. Develop materials property bank, including hazard/failure data.

**SPECIAL SCOPE FEATURES:** End items and hardware oriented. Specializes in materials properties, processing and performance. Does not specialize in research or on synthesis of polymers.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Anzalone, A. M.	Information Retrieval	(201) 328-2778
Landrock, A. J.	Adhesives	(201) 328-3189
Pebly, H. B.	Plastics	(201) 328-4222
Ready, A.	Chemistry; Electronics	(201) 328-3189
Slobodzinski, A.	Composite Materials	(201) 328-3189
Titus, J. B.	Materials	(201) 328-2778
Haciejczyk, J.	Materials	(201) 328-2778

**STAFF:** Full-time - professional 8, nonprofessional 2, total 10; part-time - professional 2, nonprofessional 3, total 5.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; abstracts; indexes; technical reports.

**HOLDINGS:** Books 300; abstracts/indexes 20,000; reports and reprints 20,000; periodicals 100; reference lists/bibliographies 200; standards and specifications 500; total number of titles 21,000; range of years of total 15 yrs.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
	Plastics and adhesives	15	20,000

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; state-of-the-art reviews; analytical studies; advisory and consulting services; referrals; bibliographic abstracts; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** On-site use of collection.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Not available.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users; charge for non-government users.

DECEMBER 1975

PROFESSIONAL AIR TRAFFIC CONTROLLERS ORGANIZATION (PATCO)

ADDRESS: 2100 M Street, N.W.  
Suite 706  
Washington, DC  
20037

TELEPHONE: (202) 296-6444

DIRECTOR: Leyden, J. F.

YEAR INFORMATION SOURCE BEGAN: 1968

MISSION: To maintain and improve air safety, especially in the area of air traffic control.

SUBJECT SCOPE: Safety analysis; Air facilities; Aircraft flight instrumentation; Navigation and guidance; Personnel selection, training and evaluation.

MAJOR SUBJECT TERMS: Airports; Landing aids; Air traffic control; Civil aviation; Flight control; Flight instruments; Flight paths; Navigation aids; Safety analysis; Safety procedures; Accident investigation; Accident prevention; Personnel development.

RESEARCH AND DEVELOPMENT ACTIVITIES: Air hazards and accident analysis; safety recommendations, especially air traffic safety, with a complete analysis of the present air traffic system to ascertain long and short range ways to improve it.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Hiller, C. O.	Aircraft Safety; Accident Investigation	(703) 356-5065

STAFF: Full-time - professional 24, nonprofessional 0, total 24; part-time - professional 0, nonprofessional 1, total 1.

INTERNAL PUBLICATIONS: Technical reports; periodicals/journals; newsletters/trade literature.

REFERENCE AND QUERY SERVICES: Questions answered individually.

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Not available.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: All services free to qualified users.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## R. DIXON SPEAS, ASSOCIATES

**ADDRESS:** 47 Hillside Avenue  
Manhasset, New York  
11030

**TELEPHONE:** (516) 627-7460

**DIRECTOR:** Speas, R. D.

**PARENT-SPONSOR-HOST AFFILIATION:** Planning Research Corporation

**YEAR INFORMATION SOURCE BEGAN:** 1951

**MISSION:** To provide professional service organization for the aviation industry in the form of studies and recommendations primarily directed to airline transportation, airport planning, general aviation, and product analysis for aircraft and component manufacturers. Studies are conducted by experts in all phases of engineering, operations, economics, and marketing.

**SUBJECT SCOPE:** Air facilities; Aircraft; Aircraft flight instrumentation; Human factors engineering; Personnel selection, training and evaluation.

**MAJOR SUBJECT TERMS:** Maintenance; Airports; Aircraft safety; Environments; Human factors engineering; Navigation aids; Aircraft maintenance.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Bornemann, D.	Computer Programming	(516) 627-7460
Feir, J.	Aircraft Safety; Information Retrieval	(516) 627-7460
Keitz, J.	Flight Control	(516) 627-7460
Miller, J.	Aircraft Maintenance	(516) 627-7460
Robart, C.	Environments	(516) 627-7460
Singer, B.	Airport Planning	(516) 627-7460
Warskow, M.	Air Traffic Control	(516) 627-7460
Wemple, E.	Information Retrieval	(516) 627-7460

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; statistical compilations; periodicals/journals.

**HOLDINGS:** Abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; total number of titles 2,000.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; state-of-the-art reviews; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** On-site use of collection.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## RAILROAD RESEARCH INFORMATION SERVICE (RRIS)

**ADDRESS:** Transportation Research Board  
 National Academy of Sciences  
 2101 Constitution Avenue, N.W.  
 Washington, DC  
 20418

**TELEPHONE:** (202) 389-6611

**DIRECTOR:** Houser, F. N.

**PARENT-SPONSOR-HOST AFFILIATION:** Federal Railroad Administration

**YEAR INFORMATION SOURCE BEGAN:** 1973

**MISSION:** To collect, classify and disseminate information covering the entire range of railroading and railroad technology.

**SUBJECT SCOPE:** Propulsion, engines and fuels; Communications; Ground transportation equipment; Fire, explosion and detonations; Dangerous materials; Industrial safety manuals, codes, specifications, standards, etc.; Safety analysis; Human factors engineering; Snow, ice and permafrost; Soil mechanics; (Electrical) components; Electronic and electrical engineering; Metals; Oils, lubricants, and hydraulic fluids; Corrosion and degradation; Mechanical, industrial, civil and marine engineering; Methods and equipment.

**MAJOR SUBJECT TERMS:** Railroads; Railroad accidents; Propulsion system performance; Vehicles (land); Human factors engineering; Information retrieval; Transportation; Maintenance.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Houser, F. N.	Railroads	(202) 389-6611

**STAFF:** Full-time - professional 3, nonprofessional 1, total 4; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Abstracts; indexes; periodicals/journals; reference lists/bibliographies.

**HOLDINGS:** Abstracts/indexes; reference lists/bibliographies; standards and specifications; total number of titles 8100; range of years of total 1973-.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
	Comprehensive U.S. & International Railroading Information	1973-complete	9400

**REFERENCE AND QUERY SERVICES:** Retrospective searches; selective dissemination of information.

**OTHER SERVICES:** Reproduction/publication services.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

ORIGINAL PAGE IS  
 OF POOR QUALITY

REYNOLDS METALS CO., TECHNICAL INFORMATION SERVICES (TIS)

ADDRESS: Fourth and Canal Streets  
P.O. Box 2346  
Richmond, VA  
23218

TELEPHONE: (703) 649-1411

DIRECTOR: Dietsch, F. F.

YEAR INFORMATION SOURCE BEGAN: 1965

MISSION: To be responsible for the acquisition, storage and retrieval of all technical information required by the technical professional staff of the Reynolds Metals Company.

SUBJECT SCOPE: Composite materials; Metals; Containers and packaging; Corrosion and degradation.

MAJOR SUBJECT TERMS: Aluminum; Metallurgy; Corrosion; High strength alloys; Materials.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Dietsch, F. F.	Information Retrieval	(703) 649-1411

STAFF: Full-time - professional 6, nonprofessional 2, total 8; part-time - professional 0, nonprofessional 0, total 0.

HOLDINGS: Books 14,000; reports and reprints; periodicals.

REFERENCE AND QUERY SERVICES: Retrospective searches (literature); state-of-the-art reviews and compilations; translations.

OTHER SERVICES: Interlibrary loans.

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Microfilm copy.

USER QUALIFICATIONS: Immediate staff or members; other libraries,

DECEMBER 1975

**ROYLANCE, HERBERT M., CONSULTANT**

**ADDRESS:** 2013 North Inglenwood Street  
Arlington, VA  
22205

**TELEPHONE:** (703) 536-8694

**DIRECTOR:** Roylance, H. M.

**MISSION:** To provide safety consulting services with particular reference to the explosives safety aspects of weapons, including their explosive components and propellants, and to provide advisory services in these areas.

**SUBJECT SCOPE:** Ordnance; Ammunition, explosives and pyrotechnics.

**MAJOR SUBJECT TERMS:** Pyrotechnics; Propellants; Explosives; Safety procedures; Safety regulations.

**SPECIAL SCOPE FEATURES:** Expertise in all types of explosives, propellants, and pyrotechnics; facilities design and layout, including siting for manufacture, processing, and research and development of subject items. Assistance in preparation of safety manuals and safety standards.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Roylance, H. M.	Explosives; Safety Procedures	(703) 536-8694

**INTERNAL PUBLICATIONS:** Technical reports; conference papers.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**USER QUALIFICATIONS:** General technology community in explosives; ad hoc permission; government contractors and activities.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

**SMOKE, FIRE AND BURN FOUNDATION, INC.**

**ADDRESS:** 53 State Street  
Boston, MA  
02109

**TELEPHONE:** (617) 742-1609

**DIRECTOR:** Phillips, A. W., Dr.

**YEAR INFORMATION SOURCE BEGAN:** 1973

**MISSION:** To sponsor and promote public education on fire prevention and safety; to sponsor and promote scientific research on prevention, detection and control of fire and on protection of the public and the firefighter therefrom, and to carry on medical research, including investigations and studies to discover, develop or verify knowledge relating to the causes, prevention, diagnosis, and treatment of traumatic injuries, especially those resulting from heat, fire and chemicals (including burns, heat exposure, shock, oxygen deprivation and injuries due to the inhalation of irritant and toxic combustion products), and to collect, tabulate, and correlate data, all with a view of public dissemination of knowledge and information in these areas.

**SUBJECT SCOPE:** Fire, explosion and detonations; Combustion and ignition.

**MAJOR SUBJECT TERMS:** Fire prevention; Fire fighting; Fires; Smoke; Combustion; Toxicity; Burns (injuries).

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Investigation to determine the extent of the basic knowledge of teachers and students in the areas of fire safety.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Phillips, A. W.	Burns (Injuries)	(617) 742-1609

**STAFF:** Full-time - professional 1, nonprofessional 1, total 2; part-time - professional 0, nonprofessional 35, total 35.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; periodicals/journals.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; standards and specifications; statistical compilations; total number of titles approximately 100.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** On-site use of collection; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; staff or members of affiliated organizations.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

**SOCIETY FOR THE ADVANCEMENT OF MATERIAL AND PROCESS ENGINEERING (SAMPE)**

**ADDRESS:** 668 South Azusa Avenue  
Box 613  
Azusa, CA  
91702

**TELEPHONE:** (213) 334-1810

**DIRECTOR:** Smith, M.

**YEAR INFORMATION SOURCE BEGAN:** 1943

**MISSION:** To advance material-and-process technology for aerospace and other industries and to assist in communicating technical information concerning material and process technology.

**SUBJECT SCOPE:** Missile technology; Propulsion engines and fuels; Materials; Space technology; Composite materials; Metals; Adhesives and seals; Coatings, colorants and finishes; Aeronautics; Electronics and electrical engineering.

**MAJOR SUBJECT TERMS:** Aeronautics; Aerospace engineering; Materials; Missiles; Propulsion; Electronics; Composite materials.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Collection, compilation and dissemination of technical papers and information presented at SAMPE's Annual Meetings.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Smith, M.	Materials; Composite Materials	(213) 334-1810

**STAFF:** Full-time - professional 2, nonprofessional 3, total 5; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Books; technical reports; periodicals/journals; newsletters/trade literature; conference papers; reference lists/bibliographies.

**HOLDINGS:** Books; periodicals; total number of titles 100.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; referrals.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

STANFORD RESEARCH INST., TECH. INFORM. SERV. ON FIRE RELATED LITERATURE

ADDRESS: Stanford Research Institute  
Menlo Park, CA  
94025

TELEPHONE: (415) 326-6200 ext 2979

DIRECTOR: Fishman, N.

YEAR INFORMATION SOURCE BEGAN: 1971

MISSION: To collect, store, and retrieve specialized literature covering fire retardance, fire behavior and related polymer information for the availability of industry and government.

SUBJECT SCOPE: Chemistry; Combustion and ignition; Plastics; Fibers and textiles; Rubbers; Wood and paper products; Coatings, colorings and finishes; Fire, explosion and detonations; Composite materials.

MAJOR SUBJECT TERMS: Chemistry; Plastics; Fire prevention; Fire resistant materials; Information retrieval; Fires; Fire hazards; Combustion; Adhesives; Instruments; Smoke; Toxicity.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Wright, R.	Chemistry	(415) 326-6200 ext 3734

INTERNAL PUBLICATIONS: Indexes; reference lists/bibliographies.

HOLDINGS: Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; total number of titles 6,400; range of years of total 1930-1972.

REFERENCE AND QUERY SERVICES: Questions answered individually; retrospective searches; selective dissemination of information; prior art/patent searches; state-of-the-art reviews; analytical studies; advisory and consulting services; referrals; bibliographic abstracts; scientific or statistical data retrieval/compilation; custom abstracting and indexing services.

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Not available.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: Charge to all users for all services.

DECEMBER 1975

## STANFORD RESEARCH INST., TOXICOLOGY DEPARTMENT (SRI)

**ADDRESS:**

Menlo Park, CA  
94025

**TELEPHONE:** (415) 326-6200

**DIRECTOR:** Newell, G. W.

**YEAR INFORMATION SOURCE BEGAN:** 1946

**MISSION:** A nonprofit problem-solving organization that performs basic and applied research under contract for clients in business, industry and government in the United States and 65 other countries.

**SUBJECT SCOPE:** Toxicology; Dangerous materials; Microbiology.

**MAJOR SUBJECT TERMS:** Toxicity; Hazardous materials.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Oral, skin and eye toxicological evaluations of rocket propellant fuels, and inhalation studies of respiratory irritants.

**SPECIAL SCOPE FEATURES:** Subacute and chronic toxicological investigations are undertaken when information is needed about the safety of a material that may be repeatedly ingested, such as a drug, environmental component, agricultural pesticide, or food residue. The aquatic laboratory of the toxicology department also offers research capabilities in the fields of aquatic biology and water pollution.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Newell, G.	Chemistry; Toxicity	(415) 326-6200 ext 1386
Liu, D.	Toxicity	(415) 326-6200 ext 2319
Sasmore, D.	Pathology	(415) 326-6200 ext 4461

**STAFF:** Full-time - professional 24, nonprofessional 2, total 26; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Technical reports; conference papers.

**HOLDINGS:** Books; reports and reprints; periodicals.

**REFERENCE AND QUERY SERVICES:** Selective dissemination of information; analytical studies; advisory and consulting services; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Interlibrary loans; reproduction/publication services.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfilm copy; microfiche copy.

**USER QUALIFICATIONS:** General technology community.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

STANFORD UNIV., CLINICAL PSYCHOPHARMACOLOGY AND PSYCHOPHYSIOLOGY LABORATORY

ADDRESS: Stanford University  
Palo Alto, CA  
94304

TELEPHONE: (415) 497-5158

DIRECTOR: Tinklenberg, J. R.

MISSION: To study the physiological and psychological effects of drugs and alcohol.

SUBJECT SCOPE: Man-machine hazards; Physiology; Clinical medicine; Psychology; Stress physiology.

MAJOR SUBJECT TERMS: Physiology; Physiological hazards; Psychology.

RESEARCH AND DEVELOPMENT ACTIVITIES: Projects include studying the effects of cannabis and alcohol on human psychology, cognition, memory and physiology.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Tinklenberg, J. R.	Physiology; Psychology; Physiological Hazards	(415) 497-5158

DECEMBER 1975

## SUPERCONDUCTIVE MATERIALS DATA CENTER (SMDC)

**ADDRESS:** General Electric Research and Development Center  
P.O. Box 8  
Schenectady, NY  
12301

**TELEPHONE:** (518) 346-8771 ext 6430

**DIRECTOR:** Roberts, B. W.

**PARENT-SPONSOR-HOST AFFILIATION:** General Electric Company; National Bureau of Standards

**YEAR INFORMATION SOURCE BEGAN:** 1965

**MISSION:** To collect, collate and disseminate information on superconductive materials and to evolve standard values of important parameters for these materials.

**SUBJECT SCOPE:** Cryogenic safety; Crystallography.

**MAJOR SUBJECT TERMS:** Superconductors; Thermodynamics; Crystals; Information retrieval; Standards; Materials.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** A comprehensive report including all accumulated data is planned for publication by the National Bureau of Standards (parent organization) for 1976.

**SPECIAL SCOPE FEATURES:** Data compiled on superconductive materials include critical temperatures, critical magnetic fields, crystallographic description, source of data, critical magnetic field superconductors, presence of thermodynamic parameter data, and data on non-superconductors when specifically studied.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Roberts, B. W.	Superconductors; Materials	(518) 346-8771 ext 6430

**STAFF:** Full-time - professional 0, nonprofessional 0, total 0; part-time - professional 2, nonprofessional 1, total 3.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports.

**HOLDINGS:** Standards and specifications (specialized collection); total number of titles 2,000.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
--	Superconductor Specifications	1911-present	12,000

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; analytical studies; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** On-site use of collection.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

SYSTEMS SAFETY SOCIETY (SSS)

ADDRESS: P.O. Box 165  
Washington, DC  
20044

TELEPHONE: (202) 426-8929

DIRECTOR: Harris, R. E.

YEAR INFORMATION SOURCE BEGAN: 1963

MISSION: A non-profit professional association committed to the advancement of the state of the art of system safety, the technological understanding of system safety and the dissemination of new knowledge to all interested groups and individuals.

SUBJECT SCOPE: Safety analysis; Cryogenic safety; Man-machine hazards.

MAJOR SUBJECT TERMS: Systems engineering; Information retrieval; Cryogenic fluid safety; Safety engineering.

RESEARCH AND DEVELOPMENT ACTIVITIES: The compilation of a library of tapes on system-safety-related topics.

SPECIAL SCOPE FEATURES: The Society through its membership of over 700 is engaged in activities to promote and benefit the safety profession and professional.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Harton, E. E.	Transportation	(202) 426-2311

INTERNAL PUBLICATIONS: Periodicals/journals; newsletters/trade literature.

REFERENCE AND QUERY SERVICES: Questions answered individually; referrals.

OTHER SERVICES: Conferences/symposiums.

PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST: Hard copy.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: Charge for some services to qualified users.

DECEMBER 1975

## TECHNICAL ASSISTANCE DATA SYSTEM (TADS)

**ADDRESS:** Spill Prevention and Control Branch  
Oil & Special Materials Control Division (WH-548)  
EPA - 401 M Street, S.W.  
Washington, DC  
20460

**TELEPHONE:** (202) 245-3057 or (710) 822-9269

**DIRECTOR:** Wright, J. H.

**PARENT-SPONSOR-HOST AFFILIATION:** Environmental Protection Agency; Informatics, Inc.

**YEAR INFORMATION SOURCE BEGAN:** 1971

**MISSION:** To provide EPA regions and others with readily accessible information that is necessary in combatting hazardous substance discharges.

**SUBJECT SCOPE:** Dangerous materials.

**MAJOR SUBJECT TERMS:** Waste disposal; Information retrieval; Hazardous materials; Chemical hazards; Oils.

**SPECIAL SCOPE FEATURES:** A record, consisting of up to 120 data fields, is provided on each material's name entered into the system. Physical, chemical, manufacturing, transportation, toxicity and emergency data are included. System permits user to identify unknown pollutants using known characteristics, such as color, odor, etc., as observed on site of hazardous material spill.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Wright, J. H.	Information Retrieval	(202) 245-3057

**STAFF:** Full-time - professional 5, nonprofessional 1, total 6; part-time - professional 0, nonprofessional 0, total 0.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides; range of years of total 1960-.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
	Environmental and countermeasure data on hazardous chemicals, compounds and mixtures.		875

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; referrals.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Microfiche copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## U. S. ARMY AGENCY FOR AVIATION SAFETY (USAASAVS)

**ADDRESS:** US Army Agency for Aviation Safety  
Fort Rucker, AL  
36362

**TELEPHONE:** (205) 255-6510

**DIRECTOR:** Paulson, N. W., COL

**PARENT-SPONSOR-HOST AFFILIATION:** Department of the Army

**YEAR INFORMATION SOURCE BEGAN:** 1968

**MISSION:** Proponent for U. S. Army Aircraft Accident Prevention policy; conduct research and analysis of aviation mishap data to determine cause and effects and make recommendations that will eliminate or reduce causes; maintain an Aviation Safety Education Program; maintain and operate an automated aircraft mishap Data Management Information System.

**SUBJECT SCOPE:** Human factors engineering; Air facilities; Aircraft problems; Mathematics and statistics.

**MAJOR SUBJECT TERMS:** Aircraft safety; Aircraft problems; Airports; Air traffic control; Accident prevention; Human factors engineering; Fire fighting; Aeronautics; Fuels; Accident investigation.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Conducts applied research concerning the human factor in aviation mishaps. Conducts research concerning aircraft crashworthy structural improvements. Research approach is multivariate synthesis with two prongs: development and application of computerized analytic techniques to aviation accident data and use of results to improve the performance and management of aviation personnel and the design, maintenance, and utilization of aircraft systems.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext.-fx)
Paulson, N. W., COL	Aircraft Safety	(205) 255-6510
Kalagian, S. P., COL	Accident Investigation; Aircraft Safety	(205) 255-4402
Strange, L. C., COL	Education	(205) 255-4812
Nelson, R. D., LTC	Research and Development	(205) 255-6410
Hafers, E. R., LTC	Information Retrieval	(205) 255-4200

**INTERNAL PUBLICATIONS:** Technical reports; statistical compilations; periodicals/journals; newsletters/trade literature; reference lists/bibliographies; standards and specifications.

**HOLDINGS:** Abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; statistical compilations.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; referrals.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; staff or members of affiliated organizations; government employees; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## U.S. ARMY FUELS AND LUBRICANTS RESEARCH LABORATORY (USAFLRL)

**ADDRESS:** 8500 Culebra Road  
PO Drawer 28510  
San Antonio, TX  
78284

**TELEPHONE:** (512) 684-5111

**DIRECTOR:** Quillan, R. D.

**PARENT-SPONSOR-HOST AFFILIATION:** Southwest Research Inst.; Dept. of the Army

**MISSION:** To conduct research for the Army in the fields of fuel and fluid fire safety and fuel combustion.

**SUBJECT SCOPE:** Propellants, fuels, lubricants, hydraulic fluids safety; Jet and gas turbine engines.

**MAJOR SUBJECT TERMS:** Oils; Engines; Fuels; Hydraulics; Lubricants; Aircraft fuels; Combustion.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Recent research topics include synthetic engine oils, cooling diesel engines, antimist aircraft turbine engine fuels, fuel volatility effects on turbine combustor performance and hydrocarbon type analysis of gasoline.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Wright, B. R.	Aircraft Fuels; Engines; Fuels	(512) 684-5111 ext 2585
Stavinoha, L. L.	Hydrocarbon Fuels	(512) 684-5111
Weatherford, W. D.	Aircraft Fuels; Engines; Fuels	(512) 684-5111
Lestz, S. J.	Engines; Oils	(512) 684-5111
Wimer, W. W.	Fuels; Fire Prevention	(512) 684-5111

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## UNDERGROUND EXCAVATION AND ROCK PROPERTIES INFORMATION CENTER (UEPPIC)

**ADDRESS:** Center for Information and Numerical Data Analysis and Synthesis  
 Purdue University  
 2595 Yeager Road  
 West Lafayette, IN  
 47906

**TELEPHONE:** (317) 463-1581

**DIRECTOR:** Touloukian, Y. S.

**PARENT-SPONSOR-HOST AFFILIATION:** Purdue University; National Science Foundation

**YEAR INFORMATION SOURCE BEGAN:** 1972

**MISSION:** To establish a data bank on mechanical, thermophysical, electrical, and magnetic properties of rocks and minerals which includes results of both in-situ and laboratory tests. Particularly important is the inclusion of adequate sample characterization and test conditions to permit data evaluation and correlation and the preparation of reference data tables. To collect extensive information on methods of excavation for tunnels and underground openings. To collect all information related to the shock effects associated with nuclear/high explosive detonations.

**SUBJECT SCOPE:** Geology and mineralogy; Geomagnetism; Mining engineering; Magnetic detection; Materials; Thermodynamics.

**MAJOR SUBJECT TERMS:** Magnetic properties; Rocks; Thermodynamics; Nuclear explosions; Mechanical properties; Mining; Shock; Electromagnetic radiation.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** UEPPIC performs theoretical and analytical research, and the associated Property Research Laboratory (PRL) performs experimental research.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Judd, W. R.	Rocks; Mechanical Properties	(317) 494-8692
Von Frese, R. R. B.	Nuclear Explosions	(317) 463-1581
Touloukian, Y. S.	Physical Properties	(317) 463-1581
Ho, C. Y.	Physical Properties	(317) 463-1581
Li, H. H.	Magnetic Properties	(317) 463-1581
Shater, W. H.	Metallurgy; Information Retrieval	(317) 463-1581
Phillips, J.	Computer Programming	(317) 463-1581

**STAFF:** Full-time - professional 1, nonprofessional 1, total 2; part-time - professional 6, nonprofessional 2, total 8.

**INTERNAL PUBLICATIONS:** Books; handbooks/manuals; technical reports; statistical compilations; newsletters/trade literature; graphics/tabular materials; magnetic tape bibliographic data.

**HOLDINGS:** Reports and reprints; total number of titles 1,800; range of years of total 1893-present.

**DATA BANK RESOURCES:**

Name or Acronym	Description of Contents	Range of Years	No. of Records
	Materials Directory & Synonyms	1893-	150
	Bibliographic Citations	1893-	1,800

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; analytical studies; advisory and consulting services; scientific or statistical data retrieval/compilation; translations.

**OTHER SERVICES:** Interlibrary loans; reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

UNIV. OF ARKANSAS, CHEMICAL ENGINEERING DEPARTMENT

ADDRESS: University of Arkansas  
Fayetteville, AR  
72701

TELEPHONE: (501) 575-4951

DIRECTOR: Havens, J. A.

YEAR INFORMATION SOURCE BEGAN: 1970

MISSION: Development of test methods and procedures for assessing hazard potential of chemicals in the manufacturing and transportation environment.

SUBJECT SCOPE: Cryogenic safety; Dangerous materials; Fuels; Fire, explosion and detonations.

MAJOR SUBJECT TERMS: Cryogenic fluid safety; Fires; Thermodynamics; Chemical hazards; Hazardous materials; Explosions; Compressed gas; Liquified gases.

RESEARCH AND DEVELOPMENT ACTIVITIES: Research in thermal decomposition and ignition phenomena, hazards associated with liquified natural gas handling and transportation. Active consultant in fire and flammability related areas.

STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Havens, J. A.	Chemical Engineering	(501) 575-4951

DECEMBER 1975

UNIV. OF CALIFORNIA, DEPARTMENT OF CIVIL ENGINEERING

**ADDRESS:** The Division of Structural Engineering and Structural Mechanics  
Department of Civil Engineering  
University of California  
Berkeley, CA  
94720

**TELEPHONE:** (415) 642-6463

**DIRECTOR:** Wilson, E. L.

**MISSION:** As an integral unit of the College of Engineering at the University of California at Berkeley, performs basic research on structural components and materials under both static and dynamic loading.

**SUBJECT SCOPE:** Seismology; Structural engineering; Construction equipment, materials and supplies.

**MAJOR SUBJECT TERMS:** Structural engineering; Structural materials; Earth sciences; Fires.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Structural materials; mechanics of structural failure; structural analysis and design; mechanics of deformable bodies and experimental stress analysis; behavior of structures in plastic range; use of computers in structural analysis; fire research on structural assemblies.

**SPECIAL SCOPE FEATURES:** Operates National Information Service for Earthquake Engineering (NISEE).

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Polivka, M.	Structural Engineering	(415) 642-3555

**STAFF:** Full-time - professional 30, nonprofessional 5, total 35; part-time - professional 40, nonprofessional 0, total 40.

**INTERNAL PUBLICATIONS:** Technical reports; periodicals/journals; conference papers.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services.

**OTHER SERVICES:** On-site use of collection; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## UNIV. OF CALIFORNIA, FIRE RESEARCH GROUP (UCB-FRG)

**ADDRESS:** 543 Davis Hall  
University of California  
Berkeley, CA  
94720

**TELEPHONE:** (415) 642-5308

**DIRECTOR:** Williamson, R. B.

**YEAR INFORMATION SOURCE BEGAN:** 1968

**MISSION:** The purpose of this project is the continuing study of fire safety and the concomitant development of a rational basis for the design of the safety of buildings, aircraft and their contents.

**SUBJECT SCOPE:** Safety analysis; Fire, explosion and detonation; Structural materials limitations (metallic and non-metallic); Safety engineering; Civil engineering; Plastics; Physics; Aircraft; Laboratories, test facilities and test equipment.

**MAJOR SUBJECT TERMS:** Industrial safety; Fires; Fire prevention; Combustion; Mechanical engineering; Information retrieval; Physics; Structural materials.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Research areas include the human response to the fire process, fire radiation, polymer combustion, fire modelling, structural response to fire, and the development of a fire research information system (FRIS).

**SPECIAL SCOPE FEATURES:** A testing laboratory is operated where standard ASTM fire tests are conducted and new tests developed. Building code regulation of fire safety is studied. New test methods for aircraft materials safety are being developed. Practical methods for design engineers' use are developed in two areas: prediction of fire temperature histories, and structural response to fire. Flame spread is studied in depth. Both theory and new test methods are studied. Associated with the research objectives of the FRG has been the development of probabilistic computer simulated models for the behavioral impact of carbon-monoxide inhalation, and the development of a methodology for the description and analysis of fire and fire safety including symbols and nomenclature.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Williamson, R. B.	Physics	(415) 642-5308
Bender, R.	Architecture	(415) 642-5308
Bresler, B.	Civil Engineering	(415) 642-5308
Crossman, E. R.	Engineering Management	(415) 642-5308
Pagni, P. J.	Mechanical Engineering	(415) 642-5308
Sawyer, R. F.	Mechanical Engineering	(415) 642-5308
Tien, C. L.	Mechanical Engineering	(415) 642-5308
Grant, C. E.	Information Retrieval	(415) 642-5308
Babruskas, V.	Fire Protection; Fire Prevention	(415) 458-6000 ext. 1277

**STAFF:** Full-time - professional 7, nonprofessional 37, total 44; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Technical reports; conference papers.

**HOLDINGS:** Books 120; abstracts/indexes; reports and reprints 2,000; periodicals; standards and specifications; total number of titles ca. 3600.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; referrals.

**OTHER SERVICES:** On-site use of collection; interlibrary loans; courses/workshops.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** Immediate staff or members.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** All services free to qualified users.

## UNIV. OF MICHIGAN, RADIOLOGICAL HEALTH PROGRAM

**ADDRESS:** School of Public Health  
The University of Michigan  
Ann Arbor, MI  
48104

**TELEPHONE:** (313) 764-0523

**DIRECTOR:** Whipple, G. H.

**YEAR INFORMATION SOURCE BEGAN:** 1957

**MISSION:** Teaching, research and service in radiation protection.

**SUBJECT SCOPE:** Dangerous materials; Nuclear safety; Dangerous industrial radiation; Personnel selection, training and evaluation; Radioactive wastes and fission products; Radiobiology.

**MAJOR SUBJECT TERMS:** Reactor safety; Radioactive wastes; Nuclear radiation; Environments; Nuclear power plants; Radiation effects; Waste disposal; Education.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Prediction, measurement and control of radiation exposure from nuclear power plants.

**SPECIAL SCOPE FEATURES:** Professional education in radiological health.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Jacobson, A. P.	Radiation Effects	(313) 764-0523
Plato, P. A.	Radioactive Wastes; Waste Disposal	(313) 764-0523
Whipple, G. H.	Radiation Effects; Radioactive Wastes	(313) 764-0523

**STAFF:** Full-time - professional 3, nonprofessional 0, total 3; part-time - professional 0, nonprofessional 0, total 0.

**HOLDINGS:** Books; reports and reprints; periodicals.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; state-of-the-art reviews; analytical studies; advisory and consulting services.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Not available.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## UNIV. OF PITTSBURGH, DEPT. OF IND. ENVIRON. HEALTH SCIENCES

**ADDRESS:** Graduate School of Public Health  
University of Pittsburgh  
Pittsburgh, PA  
15261

**TELEPHONE:** (412) 624-3048, 624-3040

**DIRECTOR:** Magee, P. C.

**YEAR INFORMATION SOURCE BEGAN:** 1951

**MISSION:** The quest for knowledge in human environmental and work physiology and ergonomics, and the dissemination of this information to students here and to the scientific and nonscientific communities at large.

**SUBJECT SCOPE:** Environmental biology; Physiology; Stress physiology; Human factors engineering; Biology.

**MAJOR SUBJECT TERMS:** Physiology; Physiological hazards; Human factors engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Current research includes epidemiologic study of long-term effects of heat stress; single reading heat stress meter; safe upper limit of heat stress under a variety of combinations of air temperature, humidity, wind speed, radiant heat, metabolic energy expenditure and clothing worn.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Magee, P. C.	Environments; Physiology; Human Factors Engineering	(412) 624-3048, 624-3040

**HOLDINGS:** Books; reports and reprints; periodicals; total number of titles approx. 10,000; range of years of total 1935-present.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; advisory and consulting services.

**USER QUALIFICATIONS:** Ad hoc permission.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## UNIVERSITY OF TENNESSEE, SPACE INSTITUTE (UTSI)

**ADDRESS:** University of Tennessee  
Space Institute  
Tullahoma, TN  
37388

**TELEPHONE:** (615) 455-0631

**DIRECTOR:** Goethert, B. H.

**YEAR INFORMATION SOURCE BEGAN:** 1964

**MISSION:** The University of Tennessee Space Institute conducts research in all areas of advanced science and engineering with emphasis on aeronautics and astronautical science. It offers both full and part time graduate programs and has established a full range of continuing education programs.

**SUBJECT SCOPE:** Composite materials; Structural engineering; Fluid mechanics; Aeronautics; Mathematics; Physics; Electronics and electrical engineering.

**MAJOR SUBJECT TERMS:** Fatigue (materials); Physics; Aerospace engineering; Mathematics; Mechanical engineering; Metallurgy; Structural engineering; Structural failure; Acoustics; Noise (sound); Composite materials.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Current research areas include fluid dynamics, ground wind, transonic flow, sonic boom, magnetohydrodynamic power generation, aeroacoustics, composite materials, spectroscopy, remote sensing, and electro optics.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Dicks, J. B.	Energy	(615) 455-0631 ext 221
Frost, W.	Mechanical Engineering	(615) 455-0631 ext 216
huebschman	Electrical/Electronic Engineering	(615) 455-0631 ext 241
Mason, A. A.	Physics	(615) 455-0631 ext 216
Maus, J. R.	Aerospace Engineering	(615) 455-0631 ext 252
Feddy, K. C.	Mathematics	(615) 455-0631 ext 233
Templelmeyer, K. E.	Engineering	(615) 455-0631 ext 223
Wright	Metallurgy	(615) 455-0631 ext 216

**STAFF:** Full-time - professional 34, nonprofessional 10, total 44; part-time - professional 25, nonprofessional 0, total 25.

**INTERNAL PUBLICATIONS:** Technical reports; periodicals/journals.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** On-site use of collection; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Not available.

**USER QUALIFICATIONS:** Immediate staff or members; staff or members of affiliated organizations; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## UNIVERSITY OF UTAH, FLAMMABILITY RESEARCH CENTER (FRC)

**ADDRESS:** University of Utah  
Salt Lake City, UT  
84112

**TELEPHONE:** (801) 581-8431

**DIRECTOR:** Einhorn, I. N.

**MISSION:** Study in the following areas: the physiological and toxicological aspects of combustion; the mechanism of fire retardation of materials; the mechanism of thermal decomposition and flammability characteristics of materials; the etiology of fire; property-structure relationships in polymeric materials; fire injuries.

**SUBJECT SCOPE:** Fire, explosion and detonations; Safety analysis; Aircraft; Toxicology; Plastics; Human factors engineering; Laboratories, test facilities and test equipment; Space technology; Physiology.

**MAJOR SUBJECT TERMS:** Safety procedures; Safety analysis; Fire hazards; Fires; Fire prevention; Fire resistant materials; Safety engineering; Spacecraft; Combustion; Plastics; Physiology; Toxicity; Human factors engineering; Psychology; Aircraft safety; Fabrication; Structural materials; Aerospace engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Performs fire injury studies in Utah, fire safety studies for Ames Research Center and other NASA centers, development of analytical methodology, development of behavioral study methodology.

**SPECIAL SCOPE FEATURES:** Physiological and toxicological aspects of combustion in areas of materials, built environment, aircraft, and naval vessel safety.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Einhorn, I. N.	Polymers; Fires	(801) 581-8431
Seader, J. D.	Chemical Engineering	(801) 581-6585
Mickelson, R. W.	Polymers; Kinetics	(801) 581-8178
Jacobs, H. R.	Heat Transfer	(801) 581-7106
Baer, A. D.	Heating Rate	(801) 581-6918
Ryan, N. W.	Flame Propagation	(801) 581-7735
Newman, M. S.	Fires; Accident Investigation	(801) 581-8431

**STAFF:** Full-time - professional 29, nonprofessional 20, total 49; part-time - professional 5, nonprofessional 3, total 8.

**INTERNAL PUBLICATIONS:** Technical reports; periodicals/journals; conference papers; reference lists/bibliographies.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** Conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## UNIV. OF VIRGINIA, DEPARTMENT OF CIVIL ENGINEERING

**ADDRESS:** University of Virginia  
Charlottesville, VA  
22901

**TELEPHONE:** (804) 924-7464

**DIRECTOR:** Hoel, L. A.

**YEAR INFORMATION SOURCE BEGAN:** 1819

**MISSION:** The Department of Civil Engineering provides research and graduate programs in the following areas: structural engineering; and structural mechanics, transportation systems, environmental engineering, and soil mechanics.

**SUBJECT SCOPE:** Construction equipment, materials and supplies; Civil engineering; Structural engineering; Composite materials.

**MAJOR SUBJECT TERMS:** Air pollution; Waste disposal; Structural materials; Materials; Materials tests; Civil engineering; Structural engineering.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Structures: dynamic stability; structural optimization; dynamic response of structures; numerical techniques in structural mechanics. Transportation: analysis; planning; operations; implementation of multiurban and intercity facilities. Environmental: water supply; waste treatment; water pollution control; air pollution; radiological health. Soil mechanics: electron microscope studies of soil structure, effect of repeated loads on soil structure and stability.

**SPECIAL SCOPE FEATURES:** Special facilities available include a structural testing laboratory capable of exerting high-capacity fatigue loads.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Barton, F. W.	Structural Engineering	(804) 924-7464
Burke, K.	Environments	(804) 924-7464
Demetsky, M. J.	Transportation; Systems Engineering	(804) 924-7464
Echols, C. E.	Construction; Legal Liability	(804) 924-7464
Eppink, R. T.	Structural Engineering	(804) 924-7464
Gaylord, C. N.	Structural Engineering	(804) 924-7464
Hoel, L. A.	Transportation	(804) 924-7464
Jennings, R. L.	Structural Engineering	(804) 924-7464
Kinnier, H. L.	Structural Engineering	(804) 924-7464
Larew, H. G.	Earth Sciences	(804) 924-7464
McCormick, F. C.	Structural Materials	(804) 924-7464
Morris, D.	Systems Engineering; Structural Engineering	(804) 924-7464
Parker, C. E.	Waste Disposal	(804) 924-7464

**STAFF:** Full-time - professional 13, nonprofessional 3, total 16; part-time - professional 0, nonprofessional 1, total 1.

**INTERNAL PUBLICATIONS:** Technical reports; periodicals/journals.

**HOLDINGS:** Books; reports and reprints; periodicals.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** Reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## UNIV. OF VIRGINIA, DEPARTMENT OF ELECTRICAL ENGINEERING

**ADDRESS:** University of Virginia  
Charlottesville, VA  
22901

**TELEPHONE:** (804) 924-3960

**DIRECTOR:** Warfield, J. N.

**YEAR INFORMATION SOURCE BEGAN:** 1819

**MISSION:** Through research and teaching to introduce students to new and developing areas of electrical engineering which hold the promise of making contributions to society.

**SUBJECT SCOPE:** Electronics and electrical engineering; Computers; Astronomy; Optical detection; Communications; Aircraft problems.

**MAJOR SUBJECT TERMS:** Information retrieval; Astronomy; Electronics; Computers; Landing aids; Flight paths; Microwaves; Radiation effects; Electrical/electronic engineering; Sensors.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Current R&D in the areas of: microwave devices, control and information systems engineering, process control, frequency synthesizers, electrical power systems, optimal landing flight path determination, discrete optical sensors, radiation effects on a single crystal gas, and system modeling.

**SPECIAL SCOPE FEATURES:** Special facilities includes a fully equipped computer systems laboratory and a well-equipped solid state device research laboratory.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Mattauch, R. J.	Electrical/Electronic Engineering	(804) 924-3564
Parrish, E. A.	Electrical/Electronic Engineering	(804) 924-3042
McVey, E. S.	Sensors; Electrical/Electronic Engineering	(804) 924-3042
Cook, G.	Sensors; Electrical/Electronic Engineering	(804) 924-3042
McAlpine, G. A.	Microwaves	(804) 924-3434 or (804) 924-7003

**STAFF:** Full-time - professional 11, nonprofessional 11, total 22; part-time - professional 3, nonprofessional 0, total 3.

**INTERNAL PUBLICATIONS:** Technical reports; periodicals/journals.

**HOLDINGS:** Books; reports and reprints; periodicals.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** Reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; staff or members of affiliated organizations; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

**UNIV. OF VIRGINIA, DEPARTMENT OF ENGINEERING SCIENCE AND SYSTEMS**

**ADDRESS:** University of Virginia  
Charlottesville, VA  
22901

**TELEPHONE:** (804) 924-3292

**DIRECTOR:** Scott, J. E.

**YEAR INFORMATION SOURCE BEGAN:** 1819

**MISSION:** The Department of Engineering Science and Systems is responsible for graduate programs and research in the following areas: Aerospace Engineering, Engineering Physics, Systems Engineering.

**SUBJECT SCOPE:** Crystallography; Structural engineering; Cryogenic safety; Fluid mechanics; Space technology; Physics; Materials; Mechanics of structural failure; Air facilities.

**MAJOR SUBJECT TERMS:** Lasers; Fluid mechanics; Aeronautics; Aerospace engineering; Superconductors; Cryogenic fluid safety; Crystals; Materials; Structural failure; Plastics; X-rays; Fatigue (materials); Transportation; Structural materials; Railroads.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Areas of research include fluid dynamics, flight mechanics, space technology applications, structures, cryogenics, solid state electronics, laser applications, and transportation research.

**SPECIAL SCOPE FEATURES:** Specialized research facilities include: low-speed wind tunnels for high-lift investigations of the atmospheric boundary layers of the earth and other planets; superconducting electromagnetic wind tunnel balance system particularly suited for dynamic stability research.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Fischer, S. S.	Aerodynamics	(804) 924-3292
Haviland, J. K.	Aeronautics; Aerospace Engineering	(804) 924-3292
Jacobson, I. D.	Control Systems	(804) 924-3292
Morton, J. B.	Fluid Mechanics	(804) 924-3292
Pilkey, W. D.	Mechanical Engineering	(804) 924-3292
Junkins, J. L.	Aerospace Engineering	(804) 924-3292
Zapata, R. N.	Superconductors	(804) 924-3292

**STAFF:** Full-time - professional 33, nonprofessional 37, total 70; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Technical reports; periodicals/journals.

**HOLDINGS:** Books; reports and reprints; periodicals; total number of titles 46,000.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** Reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## UNIV. OF VIRGINIA, DEPARTMENT OF MATERIAL SCIENCES

**ADDRESS:** University of Virginia  
Charlottesville, VA  
22901

**TELEPHONE:** (804) 924-3264

**DIRECTOR:** Wilsdorf, H. G. F.

**YEAR INFORMATION SOURCE BEGAN:** 1961

**MISSION:** To offer graduate training and research programs in the study of the structure and properties of materials.

**SUBJECT SCOPE:** Crystallography; Metals; Physics; Computers; Biology; Plastics; Materials; Mechanics of structural failure; Composite materials.

**MAJOR SUBJECT TERMS:** Crystals; Physics; Failure; Fatigue (materials); Metallurgy; Materials; Plastics; Molecular structure.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Research topics include crystal structure, crystal defects, computer applications, physical metallurgy, polymer physics, surface and interface studies, and biomaterials.

**SPECIAL SCOPE FEATURES:** Special facilities available include a structural testing laboratory capable of exerting high-capacity fatigue loads.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Wilsdorf, H. G. F.	Metallurgy	(804) 924-3264
Wawner, R. E., Jr.	Composite Materials	(804) 924-3264
Jesser, W. A.	Physics; Metallurgy	(804) 924-3264
Kuhlman-Wilsdorf, G.	Crystals	(804) 924-3264
Barker, R. E.	Polymers	(804) 924-3264

**INTERNAL PUBLICATIONS:** Technical reports; periodicals/journals.

**HOLDINGS:** Books; reports and reprints; periodicals.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** Reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## UNIV. OF WASHINGTON, DEPARTMENT OF MECHANICAL ENGINEERING

**ADDRESS:** University of Washington  
 Department of Mechanical Engineering FU-10  
 Seattle, WA  
 98195

**TELEPHONE:** (206) 543-5488

**DIRECTOR:** Childs, M. E.

**YEAR INFORMATION SOURCE BEGAN:** 1965

**MISSION:** Provides basic and applied research in materials sciences covering life prediction of materials, fracture toughness, fracture mechanics, failure analysis and design against failure.

**SUBJECT SCOPE:** Mechanics of structural failure; Structural materials limitations (metallic and nonmetallic); Structural engineering.

**MAJOR SUBJECT TERMS:** Failure; Fatigue (materials); Mechanical engineering; Fracture mechanics.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Performing research on two- and three-dimensional fracture mechanics and two-dimensional fracture dynamics.

**SPECIAL SCOPE FEATURES:** Expertise in safety technology in the areas of failure analysis of actual airplanes.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Emery, A. F.	Fracture Mechanics	(206) 543-5338
Kobayashi, A. S.	Fracture Mechanics	(206) 543-5488
Taggart, R.	Failure; Materials	(206) 543-5238
Sandwith, C. J.	Failure; Materials	(206) 543-1263

**STAFF:** Full-time - professional 4, nonprofessional 0, total 4; part-time - professional 4, nonprofessional 0, total 4.

**INTERNAL PUBLICATIONS:** Conference papers; contract reports.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides; total number of titles 60,000.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; state-of-the-art reviews; analytical studies; advisory and consulting services; referrals; translations Japanese-English.

**OTHER SERVICES:** On-site use of collection; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

## UNIV. OF WISCONSIN, ENGINEERING EXPERIMENT STATION

**ADDRESS:** University of Wisconsin  
Engineering Experiment Station  
1500 Johnson Drive  
Madison, WI  
53706

**TELEPHONE:** (608) 263-1610

**DIRECTOR:** Coberly, C. A.

**YEAR INFORMATION SOURCE BEGAN:** 1894

**MISSION:** To promote engineering education by encouraging, fostering and conducting scientific investigations and industrial research; by training and developing persons for the conduct of such investigations and research; and by acquiring and disseminating knowledge in relation to industrial and engineering problems.

**SUBJECT SCOPE:** Chemical engineering; Plastics; Mechanical, industrial, civil and marine engineering; Fluid mechanics; Soil mechanics; Electronics and electrical engineering; Mechanics of structural failure; Structural materials limitations; Composite materials; Metals; Human factors engineering; Aeronautics; Mining engineering; Nuclear science and technology; Fire, explosion and detonation.

**MAJOR SUBJECT TERMS:** Chemical engineering; Mechanical engineering; Electronics; Fluid mechanics; Structural engineering; Human factors engineering; Aeronautics; Aerospace engineering; Stress analysis; Combustion; Fatigue (materials); Nuclear engineering; Vibration; Failure; Civil engineering; Mining.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Areas of relevant research include: Aerospace Mechanics, Physical Properties of Structural Materials, Vibrations and Wave Propagation, Human Factors Engineering, Electrical Engineering, Mechanical Engineering, and Nuclear Engineering.

**SPECIAL SCOPE FEATURES:** Facilities available include: Cement Laboratory, Concrete Laboratory, Fatigue Laboratory, Metals Laboratory, Experimental Stress Analysis Laboratory, and Structural Laboratory.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Bowen, J. R.	Combustion; Explosions	(608) 263-2923
Peyrot, A. H.	Structural Engineering; Reliability	(608) 262-3491
Salmon, C. G.	Structural Engineering	(608) 262-3491
Wang, C. K.	Structural Engineering	(608) 262-3491
Cheng, S.	Stress Analysis	(608) 262-3991
Schlack, A. L.	Structural Engineering	(608) 262-3990
Kessel, P. G.	Dynamics; Vibrations	(608) 262-3992
Lovell, E. G.	Structural Engineering	(608) 262-3993
Sandor, B. I.	Fatigue (Materials)	(608) 262-3993

**STAFF:** Full-time - professional 480, nonprofessional 20, total 500; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Abstracts; technical reports; periodicals/journals; conference papers.

**HOLDINGS:** Books; periodicals; total number of titles 85,000.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; analytical studies; advisory and consulting services.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

**VALLEY FORGE SPACE CENTER, PLASTICS AND ADVANCED COMPOSITES LAB.**

**ADDRESS:** Valley Forge Space Center  
P.O. Box 8555  
Philadelphia, PA  
19101

**TELEPHONE:** (215) 962-3872

**DIRECTOR:** Musikant, S., Dr.

**PARENT-SPONSOR-HOST AFFILIATION:** General Electric Co.

**YEAR INFORMATION SOURCE BEGAN:** 1958

**MISSION:** To develop advanced materials for use in space vehicles and reentry systems.

**SUBJECT SCOPE:** Spacecraft technology; Space vehicle problems; Composite materials; Cryogenic safety; Plastics; Ceramics; Metallurgy; Adhesives and seals.

**MAJOR SUBJECT TERMS:** Spacecraft; Ceramics; Materials; Elastomers; Plastics; Composite materials.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Research projects include development of external ceramic insulation for the space shuttle orbiter and development of thermal protection systems.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Hiltz, A. A.	Chemistry; Plastics	(215) 962-3872
Musikant, S.	Ceramics	(215) 962-5942
Tanzilli, R.	Ceramics	(215) 926-6070
Gehardt, J.	Ceramics; Chemistry	(215) 962-1227

**STAFF:** Full-time - professional 10, nonprofessional 15, total 25; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; abstracts; indexes; technical reports; statistical compilations; reference lists/bibliographies; standards and specifications; graphics/tabular materials; magnetic tape bibliographic data.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; advisory and consulting services; referrals.

**OTHER SERVICES:** Interlibrary loans; reproduction/publication services; courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy; microfilm copy; microfiche copy.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; staff or members of affiliated organizations; government contractors.

**USER RESTRICTIONS:** None; federal security clearance; registration with DDCI.

**PRICING AND SERVICES CHARGES:** All services free to qualified users.

DECEMBER 1975

## VIRGINIA POLYTECHNIC INST., DEPT. OF ENGINEERING SCIENCE AND MECHANICS

**ADDRESS:** Virginia Polytechnic Institute and State University  
 College of Engineering  
 Blacksburg, VA  
 24061

**TELEPHONE:** (703) 951-6651

**DIRECTOR:** Frederick, D.

**YEAR INFORMATION SOURCE BEGAN:** 1872

**MISSION:** As part of the Virginia Polytechnic Institute and the State University, performs research on various aspects of behavior of composite materials for U. S. Army Office of Research and Engineering, NASA, U.S. Air Force, AEC, and VPI and SU.

**SUBJECT SCOPE:** Composite materials; Mechanics of structural failure; Structural materials limitations (metallic and nonmetallic); Structural engineering; Acoustics.

**MAJOR SUBJECT TERMS:** Nondestructive evaluation; Fatigue (materials); Failure; Materials; Materials tests; Stress analysis; Structural materials; Acoustics; Composite materials.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Current areas of research include: Strength of Composite Materials Composite Materials, Environmental Effects on Fiber Reinforced Composites, Failure Analysis, Fracture Mechanics, Failure of Structural Materials, Material Fatigue, Stress Analysis, Crack Initiation and Propagation, and Acoustic Emissions.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No.	and Ext. (x)
Seifsnider, K. L.	Fatigue (Materials); Composite Materials; Nondestructive Evaluation	(703) 951-5316	
Heracovich, C. T.	Composite Materials	(703) 951-5372	
Heller, R. A.	Fatigue (Materials)	(703) 951-6746	
Henneke, E. G.	Mechanical Properties; Composite Materials	(703) 951-5316	
Stinchcomb, W. H.	Stress Analysis; Fracture Mechanics	(703) 951-6651	
Brinson, H. F.	Composite Materials; Fracture Mechanics	(703) 951-6627	

**STAFF:** Full-time - professional 30, nonprofessional 20, total 50; part-time - professional 0, nonprofessional 0, total 0.

**HOLDINGS:** Books; reports and reprints; periodicals; standards and specifications; graphics/tables; statistical compilations.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; state-of-the-art reviews; analytical studies; advisory and consulting services; referrals; scientific or statistical data retrieval/compilation.

**OTHER SERVICES:** Interlibrary loans; courses/workshops; conferences/symposiums.

**USER QUALIFICATIONS:** General technology community; immediate staff or members; government contractors.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## VITRO LABS.

**ADDRESS:** Vitro Laboratories Division  
14000 Georgia Avenue  
Silver Spring, MD  
20910

**TELEPHONE:** (301) 871-4791 (301) 871-7493

**DIRECTOR:** Schafter, W. G.

**PARENT-SPONSOR-HOST AFFILIATION:** Automation Industries, Inc.

**YEAR INFORMATION SOURCE BEGAN:** 1966

**MISSION:** To support the Department of the Navy's Strategic Systems Project Office in safety related activities for Fleet Ballistic Missile Weapon Systems and Strategic Weapon System. This includes the performance of studies and analyses to ensure that nuclear safety is not degraded, that the possibilities of inadvertent or unauthorized launches are eliminated, and that the possibilities of injury or death caused by incipient hazards are similarly eliminated or minimized.

**SUBJECT SCOPE:** Missile technology; Nuclear safety; Safety analysis; Ordnance; Information theory (coding).

**MAJOR SUBJECT TERMS:** Information retrieval; Safety analysis; Missiles; Launching; Systems engineering; Tests; Reactor safety.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** R&D in the areas of Weapon System Safety including analysis of interfacing subsystems; review of documentation (procedural, description, operation, maintenance, specifications, and drawings); fault tree analyses and fault tree analysis computer programs.

**SPECIAL SCOPE FEATURES:** Weapons system safety, analysis of interfacing sub-systems; review of documentation (procedural, description, operation, maintenance, specifications, and drawings); fault tree analyses and fault tree analysis computer programs.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Saben, M.	Missiles; Systems Engineering	(301) 871-4793
Goldberg, S.	Missiles; Systems Engineering	(301) 871-4791
Bender, M.	Missiles; Systems Engineering	(301) 871-2248
Seaton, D.	Mathematics; Computer Programming	(301) 871-4956
Custen, L.	Missiles; Systems Engineering	(301) 871-4575

**STAFF:** Full-time - professional 5, nonprofessional 1, total 6; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports; statistical compilations; newsletters/trade literature.

**HOLDINGS:** Books; reports and reprints; periodicals; standards and specifications.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; retrospective searches; selective dissemination of information; state-of-the-art reviews; advisory and consulting services; referrals.

**OTHER SERVICES:** Reproduction/publication services.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Not available.

**USER QUALIFICATIONS:** General technology community; government employees; government contractors.

**USER RESTRICTIONS:** None; federal security clearance for classified materials.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services.

DECEMBER 1975

## WASHINGTON COLLEGE

**ADDRESS:** Washington College  
Chestertown, MD  
21620

**TELEPHONE:** (301) 778-2800

**DIRECTOR:** McLain, J. H.

**YEAR INFORMATION SOURCE BEGAN:** 1946

**MISSION:** To apply scientific principles to the arts of pyrotechnics, explosives, and safety in these fields.

**SUBJECT SCOPE:** Aerospace explosives, pyrotechnics and initiators; Fire, explosion and detonations; Chemistry.

**MAJOR SUBJECT TERMS:** Explosives; Propellants; Pyrotechnics; Smoke; Chemistry.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Solid state chemistry; initiating chemicals; flares; propellants; smokes; pflegmatization of explosives.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
McLain, J.	Explosives	(301) 778-2800 ext 201
Conkling, J. A.	Pyrotechnics	(301) 778-2800

**STAFF:** Full-time - professional 1, nonprofessional 0, total 1; part-time - professional 0, nonprofessional 0, total 0.

**INTERNAL PUBLICATIONS:** Indexes; technical reports; standards and specifications.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints; periodicals; reference lists/bibliographies; standards and specifications; graphics/tables; statistical compilations; films and slides.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; selective dissemination of information; analytical studies; advisory and consulting services; referrals.

**OTHER SERVICES:** Courses/workshops; conferences/symposiums.

**PRIMARY SOURCE DOCUMENTS AVAILABLE ON REQUEST:** Hard copy.

**USER QUALIFICATIONS:** General technology community.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge for some services to qualified users.

DECEMBER 1975

ORIGINAL PAGE IS  
OF POOR QUALITY

## WORLD DATA CENTER A: ROCKETS AND SATELLITES (WDC-A)

ADDRESS: Goddard Space Flight Center  
Code 601  
Greenbelt, MD  
20771

TELEPHONE: (301) 982-6695

DIRECTOR: Vette, J. I.

PARENT-SPONSOR-HOST AFFILIATION: NASA; National Academy of Sciences

YEAR INFORMATION SOURCE BEGAN: 1955

MISSION: To provide an international exchange of scientific reports concerning rocket and satellite experiments, and to assist scientists in obtaining additional data.

SUBJECT SCOPE: Extraterrestrial environmental hazards; Space technology; Physics.

MAJOR SUBJECT TERMS: Extraterrestrial environments; Cosmic rays; Launching; Reactor safety; Nuclear radiation; Solar radiation; Physics; Spacecraft; Information retrieval.

## STAFF SUBJECT SPECIALISTS:

Name	Subject Specialty	Tel. No. and Ext. (x)
Vette, J. I.	Physics	(301) 982-6695
Cameron, W. C.	Magnetosphere; Physics	(301) 982-4303
Chan, K.	Magnetosphere; Physics	(301) 982-2133
Davis, L. R.	Magnetosphere; Physics	(301) 982-5728
Dubach, L. L.	Meteorology	(301) 982-4556
Hei, D. S.	Nuclear Physics	(301) 982-5783
Hilberg, R. H.	Magnetosphere; Physics	(301) 982-2133
Horowitz, R.	Aeronomy	(301) 982-4556
Kelsall, T.	Astronomy	(301) 982-6045
King, J. H.	Nuclear Physics	(301) 982-6314
Lease, J. C.	Meteorology	(301) 982-4556
Sawyer, D.	Nuclear Physics	(301) 982-2133
Schofield, N.	Magnetosphere; Physics	(301) 982-2133
Stassingopoulos, E. G.	Nuclear Physics	(301) 982-4067
Teague, M. J.	Magnetosphere; Physics	(301) 982-2133
Wende, C. D.	Astronomy	(301) 982-6045

STAFF: Full-time - professional 22, nonprofessional 0, total 22; part-time - professional 0, nonprofessional 0, total 0.

INTERNAL PUBLICATIONS: Book catalogs; technical reports; reference lists/bibliographies.

HOLDINGS: Reports and reprints.

REFERENCE AND QUERY SERVICES: Questions answered individually; scientific or statistical data retrieval/compilation.

OTHER SERVICES: On-site use of collection.

USER QUALIFICATIONS: General technology community.

USER RESTRICTIONS: None.

PRICING AND SERVICES CHARGES: All services free to qualified users.

DECEMBER 1975

## YORK RESEARCH CORPORATION (YRC)

**ADDRESS:** One Research Drive  
Stamford, CT 06909 7100 Broadway  
Bldg 3A  
Denver, CO  
80221

**TELEPHONE:** (203) 325-1371 or (203) 426-1582

**DIRECTOR:** Govan, F. A., P.E.

**YEAR INFORMATION SOURCE BEGAN:** 1941

**MISSION:** To serve the private and public sectors in the areas of energy conservation and economic analysis, environmental testing, ambient and source pollution testing, combustion research and safety engineering.

**SUBJECT SCOPE:** Cryogenic safety; Combustion and ignition; Marine engineering; Energy conservation techniques; Meteorology; Analytical chemistry.

**MAJOR SUBJECT TERMS:** Air pollution; Combustion; Fuels; Oils; Liquified gases; Molybdenum; Compressed gas; Cryogenic fluid safety; Meteorology; Shock; Vibration; Environments; Energy; Catalysts.

**RESEARCH AND DEVELOPMENT ACTIVITIES:** Projects include: development of municipal solid waste (MSW) fuels, oil suspension of MSW fuels, molybdenum substitute for TEL in gasoline, sonic atomization burners, low excess air and flue gas recirculation in boiler operations.

**STAFF SUBJECT SPECIALISTS:**

Name	Subject Specialty	Tel. No. and Ext. (x)
Melmed, K., Dr.	Catalysts	(203) 325-1371
Monro, R.	Combustion	(203) 325-1371
Curt, R.	Economic Factors	(203) 325-1371
Kaplin, E.	Meteorology; Air	(203) 325-1371
Clingman, P.	Environments; Tests	(203) 325-1371

**STAFF:** Full-time - professional 55, nonprofessional 15, total 70; part-time - professional 0, nonprofessional 5, total 5.

**INTERNAL PUBLICATIONS:** Handbooks/manuals; technical reports and economic papers; conference papers.

**HOLDINGS:** Books; abstracts/indexes; reports and reprints of YRC published and conference papers.

**REFERENCE AND QUERY SERVICES:** Questions answered individually; advisory and consulting services; proposal preparations.

**OTHER SERVICES:** Reproduction/publication services; computer analysis and data; machine shop; instrument calibration.

**USER QUALIFICATIONS:** Ad hoc permission.

**USER RESTRICTIONS:** None.

**PRICING AND SERVICES CHARGES:** Charge to all users for all services (except minor services).

DECEMBER 1975

**INDEXES**

**I. INFORMATION SOURCES LISTED BY AREAS OF EXPERTISE**

**II. ALPHABETICAL LIST OF EXPERTS**

**III. EXPERTS LISTED BY SPECIALTY**

*PRECEDING PAGE BLANK NOT FILMED*

## Information Sources Listed By Areas Of Expertise

- Acceleration**  
Garbell Research Foundation, 68
- Acceleration/deceleration**  
*see* Acceleration
- Accident analysis**  
*see* Accident investigation
- Accident data**  
*see* Accident investigation
- Accident/incident investigation**  
*see* Accident investigation
- Accident/incident reporting**  
*see* Accident investigation
- Accident investigation**  
*see also* Accident prevention; Accidents  
Arthur D. Little, Safety and Fire Technology Unit, 17  
Canale Research, 37  
Cranston Research Inc., 51  
Cryogenic Consultants, Inc., 53  
Garbell Research Foundation, 68  
Hazards Research Corporation, 75  
Institute of Safety and Systems Management, Safety Center, 84  
Leak, John S., Consultants, 95  
National Bureau of Standards, Mechanical Properties Section, 107  
National Highway Traffic Safety Admin., Tech. Ref. Br. 112  
National Safety Council, 116  
Office of Hazardous Materials, 130  
Ohio State Univ., Aviation Medicine Research Laboratory, 131  
Professional Air Traffic Controllers Organization, 141  
U. S. Army Agency for Aviation Safety, 154
- Accident prevention**  
Aviation Safety Institute, 22  
Boeing Vertol Co., Product Assurance and System Safety 34  
Consumer Product Safety Commission, 47  
Federal Highway Administration, 64  
Institute of Safety and Systems Management, Safety Center, 84  
Inst. of Safety and Systems Mgmt., Traffic Safety Center 85  
International Safety Academy, 90  
Manufacturing Chemists Assn., Information Services 100  
National Safety Council, 116  
Professional Air Traffic Controllers Organization, 141  
U. S. Army Agency for Aviation Safety, 154
- Accident procedures**  
*see* Accident prevention
- Accident reporting**  
*see* Accident investigation
- Accidents**  
*see also* Accident investigation; Accident prevention
- Accidents (cont'd)**  
Boeing Aerospace Co., Product and System Safety Org. 31  
Boeing Vertol Co., Product Assurance and System Safety 34  
Center for Short-Lived Phenomena, 38  
Consumer Product Safety Commission, 47  
Food and Drug Administration, Poison Control Program 65  
International Safety Academy, 90  
Leak, John S., Consultants, 95  
George Washington Univ., School of Engin. and Appl. Sci., 9  
National Safety Council, 116  
Oak Ridge Associated Univ., REAC/TS, 128  
Oil and Hazardous Material Technical Assistance Data System, 133
- Accidents/incidents**  
*see* Accidents
- Acoustic loading**  
*see* Acoustics
- Acoustic radiation**  
*see* Acoustics
- Acoustics**  
American Inst. of Aeronautics and Astronautics, Inc. 12  
Comprehensive University of Dayton On-Line Services 44  
Cranston Research Inc., 51  
Garbell Research Foundation, 68  
Georgia Inst. of Technology, Engineering Experiment Station, 71  
Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101  
Naval Research Laboratory, 118  
Nondestructive Testing Data Support Center, 122  
University of Tennessee, Space Institute, 162  
Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech. 171
- Adhesives**  
Auburn Univ., Materials Engineering Dept., 20  
Cobalt Information Center, 42  
Plastics Technical Evaluation Center, 140  
Stanford Research Inst., Tech. Inform. Serv., 148
- Aerodynamic flow**  
*see* Aeronautics
- Aerodynamic friction**  
*see* Aeronautics
- Aerodynamics**  
*see* Aeronautics
- Aeronautics**  
American Astronautical Society, 9  
American Inst. of Aeronautics and Astronautics, Inc. 12  
Center for Short-Lived Phenomena, 38  
Garbell Research Foundation, 68  
Government-Industry Data Exchange Program, 72

- Aeronautics (cont'd)**
- Jet Propulsion Lab., 91
  - Knowledge Availability Systems Information Center, 93
  - Leak, John S., Consultants, 95
  - Soc. for the Advancement of Material and Process En-gin., 147
  - U. S. Army Agency for Aviation Safety, 154
  - Univ. of Virginia, Dept. of Engineering Sci. and Syst. 166
  - Univ. of Wisconsin, Engineering Experiment Station 169
- Aerospace engineering**
- see also* Safety engineering
  - Becker, Herbert, Consultant, 28
  - Boeing Aerospace Co., Experience Analysis Center, 30
  - Boeing Aerospace Co., Product and System Safety Org. 31
  - Boeing Aerospace Co., Safety Engineering, 32
  - Canale Research, 37
  - Center for Short-Lived Phenomena, 38
  - Cosmodyne, 49
  - Cranston Research Inc., 51
  - General Electric Co., High Voltage Laboratory, 69
  - Government-Industry Data Exchange Program, 72
  - Institute of Safety and Systems Management, Safety Cen-ter, 84
  - Jet Propulsion Lab., 91
  - Leak, John S., Consultants, 95
  - Soc. for the Advancement of Material and Process En-gin., 147
  - Univ. of Virginia, Dept. of Engineering Sci. and Syst. 166
  - Univ. of Wisconsin, Engineering Experiment Station 169
  - University of Tennessee, Space Institute, 162
  - University of Utah, Flammability Research Center, 163
- Aerospace explosives**
- see* Explosives
- Aerospace ground facilities**
- see* Ground support systems
- Aerospace ground operations**
- see* Ground support systems
- Aerospace medicine**
- see also* Medicine
  - American Inst. of Aeronautics and Astronautics, Inc. 12
  - Auburn Univ., Materials Engineering Dept., 20
  - Duke Univ. Eye Center, 56
  - Federal Aviation Administration, Off. of Aviation Medi-cine, 63
  - IIT Research Inst., 76
  - Knowledge Availability Systems Information Center, 93
  - Ohio State Univ., Physiological Fluid Mechanics Res. Grp., 132
  - Ohio State Univ., Aviation Medicine Research Laborato-ry, 131
- Aerospace nuclear safety**
- see* Reactor safety
- Aerospace sciences**
- see* Aerospace engineering
- Air**
- Lockheed Radiation Physics Group, 98
- Air navigation**
- see* Navigation aids
- Air navigation aids**
- see* Navigation aids
- Air pollutants**
- see* Air pollution
- Air pollution**
- see also* Fires; Smoke
  - Airport Operators Council International, 5
  - Arthur D. Little, Safety and Fire Technology Unit, 17
  - Environmental Protection Agency, Off. of Radiation Pro-grams, 62
  - Mass. Inst. of Technology, Dept. of Mechanical Engi-neering, 101
  - Univ. of Virginia, Department of Civil Engineering, 164
  - York Research Corporation, 175
- Air pollution control**
- see* Air pollution
- Air rescue/recovery operations**
- see* Rescue operations
- Air traffic control**
- Aerospace Corp., Energy & Transportation Division, 3
  - Aviation Safety Institute, 22
  - Aviation Simulations International, 23
  - Federal Aviation Administration, Off. of Aviation Medi-cine, 63
  - IIT Research Inst., 76
  - Leak, John S., Consultants, 95
  - Professional Air Traffic Controllers Organization, 141
  - U. S. Army Agency for Aviation Safety, 154
- Air traffic control facilities**
- see* Air traffic control
- Air traffic control operations**
- see* Air traffic control
- Air transportation**
- see* Aircraft safety
- Aircraft certification**
- see* Aircraft problems
- Aircraft communications**
- see* Telecommunications
- Aircraft engines**
- see* Engines
- Aircraft equipment**
- see* Aircraft problems
- Aircraft fuels**
- see also* Fuels
  - U.S. Army Fuels and Lubricants Research Laboratory 155
- Aircraft instrumentation**
- see* Aircraft problems
- Aircraft instruments**
- see* Aircraft problems; Navigation aids
- Aircraft laws/standards/regulations**
- see* Aircraft problems
- Aircraft maintenance**
- see also* Aircraft problems
  - R. Dixon Spears, Associates, 142

- Aircraft problems**  
*see also* Aircraft maintenance  
 Aviation Systems Command Reference Library, 24  
 Boeing Aerospace Co., Experience Analysis Center, 30  
 Comprehensive University of Dayton On-Line Services  
 44  
 Garbell Research Foundation, 68  
 Institute of Safety and Systems Management, Safety Center, 84  
 Leak, John S., Consultants, 95  
 U. S. Army Agency for Aviation Safety, 154
- Aircraft propulsion systems**  
*see* Engines
- Aircraft regulations**  
*see* Aircraft problems; Civil aviation
- Aircraft reliability**  
*see* Aircraft problems
- Aircraft safety**  
 American Inst. of Aeronautics and Astronautics, Inc.  
 12  
 Army Materiel Command Safety Office, 16  
 Arthur D. Little, Safety and Fire Technology Unit, 17  
 Aviation Safety Institute, 22  
 Aviation Simulations International, 23  
 Boeing Vertol Co., Product Assurance and System Safety  
 34  
 Cranston Research Inc., 51  
 Federal Aviation Administration, Off. of Aviation Medicine, 63  
 Garbell Research Foundation, 68  
 General Electric Co., High Voltage Laboratory, 69  
 IIT Research Ins., 76  
 Leak, John S., Consultants, 95  
 Lightning and Precipitation Static Test Laboratory, 96  
 Lightning and Transients Research Inst., 97  
 McDonnell Aircraft Co., Lightning Simulation Laboratory, 102  
 National Bureau of Standards, Fire Res. Inform. Services  
 106  
 National Safety Council, 116  
 Northwestern Univ., Transportation Center Library, 126  
 R. Dixon Speas, Associates, 142  
 U. S. Army Agency for Aviation Safety, 154  
 University of Utah, Flammability Research Center, 163
- Aircraft subsystems**  
*see* Aircraft problems
- Aircraft types**  
*see* Aircraft safety
- Airport construction**  
*see* Airports
- Airport emergency facilities**  
*see* Airports
- Airport emergency facilities/equipment**  
*see* Airports
- Airport facilities**  
*see* Airports
- Airport lighting**  
*see* Airports
- Airports**  
*see also* Landing aids; Navigation aids  
 Airport Operators Council International, 5
- Airports (cont'd)**
- Austin Research Engineers, Inc., 21  
 Garbell Research Foundation, 68  
 International Association of Chiefs of Police, 86  
 Leak, John S., Consultants, 95  
 Professional Air Traffic Controllers Organization, 141  
 R. Dixon Speas, Associates, 142  
 U. S. Army Agency for Aviation Safety, 154
- Aluminum**  
*see also* Metallurgy  
 Aluminum Association, Inc., 8  
 Reynolds Metals Co., Technical Information Services  
 144
- Aluminum alloys**  
*see* Aluminum
- Analytic methods**  
*see* Test equipment
- Analytical chemistry**  
*see* Tests
- Analytical methods**  
*see* Materials tests
- Analytical techniques**  
*see* Materials tests; Test equipment
- Anthropometry**  
*see* Human factors engineering
- Applied forces (stresses)**  
*see* Stress analysis
- Applied research**  
*see* Research and development
- Astronomy**  
 American Astronautical Society, 9  
 American Inst. of Aeronautics and Astronautics, Inc.  
 12  
 International Planetary Patrol, 89  
 Jet Propulsion Lab., 91  
 Northern Arizona Univ., Dept. of Physics, 124  
 Univ. of Virginia, Department of Electrical Engineering  
 165
- Astrophysics**  
*see* Astronomy
- Atmospheres**  
*see also* Environments  
 General Electric Co., High Voltage Laboratory, 69  
 Georgia Inst. of Technology, Engineering Experiment Station, 71  
 International Planetary Patrol, 89  
 Lockheed Radiation Physics Group, 98
- Atmospheric monitoring**  
*see* Atmospheres
- Atmospheric sciences**  
*see* Atmospheres
- Atomic structure**  
*see* Nuclear physics
- Automotive safety equipment**  
*see* Vehicles (land)
- Auxiliary power sources**  
*see* Power supplies

- Auxiliary power systems  
     *see* Power supplies
- Ballistic missiles  
     *see* Missiles
- Basic materials  
     *see* Materials
- Basic research  
     *see* Research and development
- Batteries  
     *see* Electric batteries
- Behavior  
     *see* Human factors engineering; Psychology
- Behavioral sciences  
     *see* Human factors engineering; Psychology
- Bibliographies  
     *see* Information retrieval
- Biodynamics  
     *see* Life sciences
- Bioinstrumentation  
     *see* Life sciences
- Biological sciences  
     *see* Life sciences
- Biology  
     *see* Life sciences
- Biomechanics  
     *see* Life sciences
- Biomedical engineering  
     *see* Life sciences
- Biomedicine  
     *see* Life sciences
- Biotechnology  
     *see* Life sciences
- Bipropellants  
     *see* Propellants
- Breathing apparatus  
     American LaFrance Inc., 13  
     Pennsylvania State Univ. Lab. for Human Performance Res., 136
- Buffeting  
     *see* Aeronautics
- Built-in test equipment  
     *see* Tests
- Burns (Injuries)  
     Smoke, Fire and Burn Foundation, Inc., 146
- Cargo  
     Coast Guard, Cargo and Hazardous Materials Division 41  
     National Cargo Bureau, Inc., 108
- Casting  
     *see* Metallurgy
- Catalysts  
     York Research Corporation, 175
- Ceramics  
     Cobalt Information Center, 42  
     Electronic Properties Information Center, 60
- Ceramics (cont'd)  
     Phase Diagrams for Ceramists, 137  
     Valley Forge Sp. Cent., Plastics and Adv. Composites Lab., 170
- Certification  
     *see* Quality control
- Chemical analysis  
     *see* Tests
- Chemical characteristics  
     *see* Chemical properties
- Chemical engineering  
     Atlas Testing Laboratories, Inc., 19  
     Church, J. M., Consultant, 39  
     Hazards Research Corporation, 75  
     Manufacturing Chemists Assn., Information Services 100  
     Univ. of Wisconsin, Engineering Experiment Station 169
- Chemical hazards  
     Army Materiel Command Safety Office, 16  
     Coast Guard, Cargo and Hazardous Materials Division 41  
     Consumer Product Safety Commission, 47  
     Food and Drug Administration, Poison Control Program 65  
     Manufacturing Chemists Assn., Information Services 100  
     Technical Assistance Data System, 153  
     Univ. of Arkansas, Chemical Engineering Department 157
- Chemical properties  
     Climax Molybdenum Co., 40  
     Coast Guard, Cargo and Hazardous Materials Division 41  
     Cobalt Information Center, 42  
     Manufacturing Chemists Assn., Information Services 100  
     Phase Diagrams for Ceramists, 137
- Chemistry  
     American Inst. of Aeronautics and Astronautics, Inc. 12  
     Atlas Testing Laboratories, Inc., 19  
     Bartlesville Energy Research Center, 26  
     Battelle Memorial Inst., Library and Information Services, 27  
     Benet Laboratories, Technical Information Services Office, 29  
     Center for Short-Lived Phenomena, 38  
     Comprehensive University of Dayton On-Line Services 44  
     Knowledge Availability Systems Information Center, 93  
     Manufacturing Chemists Assn., Information Services 100  
     National Bureau of Standards, Center for Fire Research 104  
     Naval Research Laboratory, 118  
     Picatinny Arsenal, Scientific and Technical Inform. Div. 138  
     Plastics Technical Evaluation Center, 140  
     Stanford Research Inst., Tech. Inform. Serv., 148  
     Washington College, 173
- Civil aviation  
     Aviation Safety Institute, 22

- Civil aviation (cont'd)**
- Aviation Simulations International, 23
  - Boeing Vertol Co., Product Assurance and System Safety 34
  - Federal Aviation Administration, Off. of Aviation Medicine, 63
  - Garbell Research Foundation, 68
  - Leak, John S., Consultants, 95
  - Professional Air Traffic Controllers Organization, 141
- Civil engineering**
- Austin Research Engineers, Inc., 21
  - Government-Industry Data Exchange Program, 72
  - Jet Propulsion Lab., 91
  - Knowledge Availability Systems Information Center, 93
  - Univ. of Virginia, Department of Civil Engineering, 164
  - Univ. of Wisconsin, Engineering Experiment Station 169
- Clearinghouse**
- see* Information retrieval
- Climatic ranges**
- see* Meteorology
- Climatology**
- see* Meteorology
- Clothing**
- see* Textiles
- Coatings**
- see* Metallurgy; Protective coatings
- Cobalt**
- Cobalt Information Center, 42
- Codes**
- see* Safety regulations
- Combustible gas detectors**
- see* Gas detectors
- Combustion**
- Government Research Laboratory, 74
  - Hazards Research Corporation, 75
  - Industrial Risk Insurers, 79
  - Institute of Gas Technology, 81
  - International Association of Fire Chiefs, Inc., 87
  - Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
  - McDonnell Aircraft Co., Lightning Simulation Laboratory, 102
  - National Bureau of Standards, Center for Fire Research 104
  - National Bureau of Standards, Fire Res. Inform. Services 106
  - National Center for Health Statistics, 109
  - Pennsylvania State Univ., Applied Research Laboratory 135
  - Smoke, Fire and Burn Foundation, Inc., 146
  - Stanford Research Inst., Tech. Inform. Serv., 148
  - U.S. Army Fuels and Lubricants Research Laboratory 155
  - Univ. of California, Fire Research Group, 159
  - Univ. of Wisconsin, Engineering Experiment Station 169
  - University of Utah, Flammability Research Center, 163
  - York Research Corporation, 175
- Combustion products**
- see* Combustion
- Commercial aviation**
- see* Civil aviation
- Communications**
- see* Telecommunications
- Communications systems**
- see* Telecommunications
- Compatibility**
- see* Structural materials
- Components**
- see* Safety equipment
- Composite materials**
- see also* Materials
  - Plastics Technical Evaluation Center, 140
  - Soc. for the Advancement of Material and Process Engin., 147
  - University of Tennessee, Space Institute, 162
  - Valley Forge Sp. Cent., Plastics and Adv. Composites Lab., 170
  - Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech. 171
- Composites**
- see* Composite materials
- Compounds**
- see* Chemical properties
- Compressed gas**
- Army Materiel Command Safety Office, 16
  - Coast Guard, Cargo and Hazardous Materials Division 41
  - Compressed Gas Association, Inc., 46
  - Institute of Gas Technology, 81
  - International Association of Fire Chiefs, Inc., 87
  - National Bureau of Standards, Center for Fire Research 104
  - Univ. of Arkansas, Chemical Engineering Department 157
  - York Research Corporation, 175
- Computers**
- Univ. of Virginia, Department of Electrical Engineering 165
- Construction**
- see also* Environments
  - International Conference of Building Officials, 88
- Construction materials**
- see* Materials; Structural materials
- Construction practices**
- see* Structural materials
- Consumer protection**
- Airport Operators Council International, 5
  - Com. for the Advancement of Public Interest Organizations, 43
  - Consumer Product Safety Commission, 47
  - Food and Drug Administration, Poison Control Program 65
  - National Bureau of Standards, Center for Fire Research 104
  - National Center for Health Statistics, 109

- Control**  
*see Safety equipment*
- Control systems**  
*see Safety equipment*
- Controls**  
*see Safety equipment*
- Corrosion**  
 Atlas Testing Laboratories, Inc., 19  
 Barsom, J. M., Consultant, 25  
 Climax Molybdenum Co., 40  
 Coast Guard, Cargo and Hazardous Materials Division  
 41  
 Cobalt Information Center, 42  
 Metals Properties Council, Inc., 103  
 National Bureau of Standards, Mechanical Properties  
 Section, 107  
 Naval Air Engineering Center, 117  
 Reynolds Metals Co., Technical Information Services  
 144
- Corrosion characteristics**  
*see Corrosion*
- Corrosion properties**  
*see Corrosion*
- Corrosives**  
*see Corrosion*
- Cosmic radiation**  
*see Cosmic rays*
- Cosmic rays**  
 National Geophysical and Solar-Terrestrial Data Center  
 111  
 Naval Research Laboratory, 118  
 World Data Center A: Rockets and Satellites, 174
- Cotton**  
*see Textiles*
- Crew considerations**  
*see Human factors engineering; Personnel selection*
- Crews**  
*see Human factors engineering; Personnel selection*
- Cryogenic facility safety design**  
*see Cryogenic fluid safety*
- Cryogenic fluid safety**  
 Arthur D. Little, Safety and Fire Technology Unit, 17  
 Atlas Testing Laboratories, Inc., 19  
 Becker, Herbert, Consultant, 28  
 Compressed Gas Association, Inc., 46  
 Cosmodyne, 49  
 Cryogenic Consultants, Inc., 53  
 Dalton Research Center, 55  
 Institute of Gas Technology, 81  
 Los Alamos Scientific Lab., Cryogenic Engineering Section, 99  
 Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101  
 Naval Air Engineering Center, 117  
 Office of Hazardous Materials, 130  
 Oil and Hazardous Material Technical Assistance Data System, 133  
 Systems Safety Society, 152  
 Univ. of Arkansas, Chemical Engineering Department  
 157
- Cryogenic fluid safety (cont'd)**  
 Univ. of Virginia, Dept. of Engineering Sci. and Syst.  
 166  
 York Research Corporation, 175
- Cryogenic fluids**  
*see Cryogenic fluid safety*
- Cryogenic fluids handling**  
*see Cryogenic fluid safety*
- Cryogenic fluids transportation**  
*see Cryogenic fluid safety*
- Cryogenic systems**  
*see Cryogenic fluid safety*
- Cryogenic systems hazards**  
*see Cryogenic fluid safety*
- Cryogenic systems materials selection**  
*see Crystals*
- Crystal structures**  
*see Crystals*
- Crystallography**  
*see Crystals*
- Crystals**  
 Superconductive Materials Data Center, 151  
 Univ. of Virginia, Dept. of Engineering Sci. and Syst.  
 166  
 Univ. of Virginia, Department of Material Sciences, 167
- Cubical expansion**  
*see Physical properties*
- Dangerous industrial radiation**  
*see Nuclear radiation*
- Dangerous materials**  
*see Hazardous materials*
- Dangerous materials disposal**  
*see Hazardous materials*
- Data and information**  
*see Information retrieval*
- Decompression**  
*see Rescue operations*
- Deflagration**  
 Hazards Research Corporation, 75
- Density**  
*see Physical properties*
- Detection**  
*see Detectors*
- Detection and warning systems**  
*see Detectors; Warning systems*
- Detectors**  
*see also Gas detectors; Warning systems*  
 Aviation Simulations International, 23  
 Boeing Vertol Co., Product Assurance and System Safety  
 34  
 Earth Resources Observation Systems Data Center, 57  
 Eastern Environmental Radiation Facility, 59  
 Garbell Research Foundation, 68  
 National Bureau of Standards, Fire Res. Inform. Services  
 106  
 Oak Ridge National Laboratory, Health Physics Division  
 129

- Detonations**  
*see Explosions*
- Dissociation**  
*see Nuclear physics*
- Earth sciences**  
 American Inst. of Aeronautics and Astronautics, Inc.  
 12  
 Austin Research Engineers, Inc., 21  
 Center for Short-Lived Phenomena, 38  
 Earth Resources Observation Systems Data Center, 57  
 Georgia Inst. of Technology, Engineering Experiment  
 Station, 71  
 Jet Propulsion Lab., 91  
 Knowledge Availability Systems Information Center, 93  
 National Geophysical and Solar-Terrestrial Data Center  
 111  
 National Oceanographic Data Center, 114  
 Univ. of California, Department of Civil Engineering  
 158
- Education**  
*see also Personnel development*  
 Institute of Safety and Systems Management, Safety Cen-  
 ter, 84  
 Inst. of Safety and Systems Mgmt., Traffic Safety Center  
 85  
 Oak Ridge Associated Univ., REAC/TS, 128  
 Univ. of Michigan, Radiological Health Program, 160
- Education and training**  
*see Personnel development*
- Egress**  
*see Escape systems*
- Elastomers**  
 Plastics Technical Evaluation Center, 140  
 Valley Forge Sp. Cent., Plastics and Adv. Composites  
 Lab., 170
- Electric batteries**  
 Boeing Aerospace Co., Safety Engineering, 32  
 Cryptanalytic Computer Sciences, Inc., 54
- Electrical/electronic engineering**  
*see Electricity*
- Electrical properties**  
*see Physical properties*
- Electrical/electronic engineering**  
 Boeing Aerospace Co., Sneak Circuit Analysis Group  
 33  
 Univ. of Virginia, Department of Electrical Engineering  
 165
- Electricity**  
*see also Electrical/electronic engineering*  
 Boeing Aerospace Co., Sneak Circuit Analysis Group  
 33  
 Canale Research, 37  
 Consumer Product Safety Commission, 47  
 Electronic Properties Information Center, 60  
 General Electric Co., High Voltage Laboratory, 69  
 Lightning and Transients Research Inst., 97  
 Los Alamos Scientific Lab., Cryogenic Engineering Sec-  
 tion, 99
- Electromagnetic disturbances**  
*see Electromagnetic interference*
- Electromagnetic interference**  
 National Geophysical and Solar-Terrestrial Data Center  
 111  
 Northern Arizona Univ., Dept. of Physics, 124
- Electromagnetic phenomena**  
*see Electromagnetic radiation*
- Electromagnetic radiation**  
 Armed Forces Institute of Pathology, 14  
 Earth Resources Observation Systems Data Center, 57  
 Eastern Environmental Radiation Facility, 59  
 Electronic Properties Information Center, 60  
 Georgia Inst. of Technology, Engineering Experiment  
 Station, 71  
 National Geophysical and Solar-Terrestrial Data Center  
 111  
 Naval Research Laboratory, 118  
 Nondestructive Testing Data Support Center, 122  
 Underground Excavation and Rock Properties Inform.  
 Center, 156
- Electronic components**  
*see Safety equipment*
- Electronic counter measures**  
*see Safety equipment*
- Electronic devices**  
*see Safety equipment*
- Electronic networks/circuits**  
*see Safety equipment*
- Electronic properties**  
*see Safety equipment*
- Electronics**  
*see also Safety equipment*  
 Bartlesville Energy Research Center, 26  
 Boeing Aerospace Co., Experience Analysis Center, 30  
 Electronic Properties Information Center, 60  
 Government-Industry Data Exchange Program, 72  
 Joint Industrial Council, 92  
 Knowledge Availability Systems Information Center, 93  
 Naval Research Laboratory, 118  
 Picatinny Arsenal, Scientific and Technical Inform. Div.  
 138  
 Plastics Technical Evaluation Center, 140  
 Soc. for the Advancement of Material and Process En-  
 gineering, 147  
 Univ. of Virginia, Department of Electrical Engineering  
 165  
 Univ. of Wisconsin, Engineering Experiment Station  
 169
- Energy**  
 Aerospace Corp., Energy & Transportation Division, 3  
 Center for Short-Lived Phenomena, 38  
 Government Research Laboratory, 74  
 Hazards Research Corporation, 75  
 Institute of Gas Technology, 81  
 Los Alamos Scientific Lab., Cryogenic Engineering Sec-  
 tion, 99  
 York Research Corporation, 175
- Energy conservation**  
*see Energy*
- Engine malfunctions**  
*see Engines*

- Engines**
- Bartlesville Energy Research Center, 26
  - Government-Industry Data Exchange Program, 72
  - IIT Research Inst., 76
  - U.S. Army Fuels and Lubricants Research Laboratory 155
- Enthalpy**
- see* Thermodynamics
- Entropy**
- see* Thermodynamics
- Environmental data**
- see* Environments
- Environmental degradation**
- see* Environments
- Environmental effects**
- see* Environments
- Environmental factors**
- see* Environments
- Environmental influences**
- see* Environments
- Environmental information**
- see* Environments
- Environmental sciences**
- see* Environments
- Environments**
- see also* Atmospheres; Construction
  - Aerospace Corp., Energy & Transportation Division, 3
  - American Foundrymen's Society, 11
  - Arthur D. Little, Safety and Fire Technology Unit, 17
  - Battelle Memorial Inst., Library and Information Services, 27
  - Boeing Aerospace Co., Safety Engineering, 32
  - Bolt Beranek and Newman, Inc., 36
  - Comprehensive University of Dayton On-Line Services 44
  - Earth Resources Observation Systems Data Center, 57
  - Environmental Protection Agency, Off. of Radiation Programs, 62
  - Forest Fire Information Project, 66
  - Franklin-Hahnemann Inst., 67
  - Georgia Inst. of Technology, Engineering Experiment Station, 71
  - International Safety Academy, 90
  - Manufacturing Chemists Assn., Information Services 100
  - National Geophysical and Solar-Terrestrial Data Center 111
  - Oak Ridge National Laboratory, Health Physics Division 129
  - R. Dixon Speas, Associates, 142
  - Univ. of Michigan, Radiological Health Program, 160
  - York Research Corporation, 175
- Equipment**
- see* Safety analysis; Safety equipment
- Equipment safety**
- see* Safety equipment
- Escape**
- see* Escape systems
- Escape systems**
- Federal Aviation Administration, Off. of Aviation Medicine, 63
  - Pennsylvania State Univ. Lab. for Human Performance Res., 136
- Evaluation**
- see* Information retrieval; Materials tests; Test equipment
- Experimental aircraft**
- see* Aircraft safety
- Explosions**
- see also* Fires
  - Allegany Ballistics Laboratory, 6
  - Arthur D. Little, Safety and Fire Technology Unit, 17
  - Auburn Univ., Materials Engineering Dept., 20
  - Church, J. M., Consultant, 39
  - Hazards Research Corporation, 75
  - Industrial Risk Insurers, 79
  - National Bureau of Standards, Mechanical Properties Section, 107
  - Univ. of Arkansas, Chemical Engineering Department 157
- Explosive devices**
- see* Explosives
- Explosive devices tests**
- see* Explosives
- Explosive disposal**
- see* Explosives
- Explosive materials**
- see* Explosives
- Explosive materials tests**
- see* Explosives
- Explosives**
- Allegany Ballistics Laboratory, 6
  - Boeing Aerospace Co., Product and System Safety Org. 31
  - Coast Guard, Cargo and Hazardous Materials Division 41
  - IIT Research Inst., 76
  - Industrial Risk Insurers, 79
  - Institute of Safety and Systems Management, Safety Center, 84
  - International Association of Chiefs of Police, 86
  - International Association of Fire Chiefs, Inc., 87
  - Naval Weapons Support Center, 119
  - Pennsylvania State Univ., Applied Research Laboratory 135
  - Picatinny Arsenal, Scientific and Technical Inform. Div. 138
  - Roylance, Herbert M., Consultant, 145
  - Washington College, 173
- Explosives safety**
- see* Explosives
- Explosives technology**
- see* Explosives
- Extinguishing agents**
- see* Fire extinguishing agents
- Extinguishment and control**
- see* Fire extinguishing agents; Fire fighting

- Extraterrestrial environmental hazards**  
*see Extraterrestrial environments*
- Extraterrestrial environments**  
 Center for Short-Lived Phenomena, 38  
 Duke Univ. Eye Center, 56  
 Federal Aviation Administration, Off. of Aviation Medicine, 63  
 International Planetary Patrol, 89  
 Lockheed Radiation Physics Group, 98  
 National Geophysical and Solar-Terrestrial Data Center 111  
 National Oceanographic Data Center, 114  
 Naval Research Laboratory, 118  
 Northern Arizona Univ., Dept. of Physics, 124  
 World Data Center A: Rockets and Satellites, 174
- Eye (anatomy)**  
 Duke Univ. Eye Center, 56
- Fabrication**  
 Atlas Testing Laboratories, Inc., 19  
 Federal Aviation Administration, Off. of Aviation Medicine, 63  
 General Electric Co., High Voltage Laboratory, 69  
 Industrial Risk Insurers, 79  
 International Association of Fire Chiefs, Inc., 87  
 International Conference of Building Officials, 88  
 National Bureau of Standards, Fire Res. Inform. Services 106  
 University of Utah, Flammability Research Center, 163
- Fabrication processes**  
*see Fabrication*
- Failure**  
 Aerospace Structures Information and Analysis Center 4  
 Auburn Univ., Materials Engineering Dept., 20  
 Boeing Vertol Co., Product Assurance and System Safety 34  
 Comprehensive University of Dayton On-Line Services 44  
 Cryogenic Consultants, Inc., 53  
 Cryptanalytic Computer Sciences, Inc., 54  
 George Washington Univ., School of Engin. and Appl. Sci., 70  
 Georgia Inst. of Technology, Engineering Experiment Station, 71  
 National Bureau of Standards, Mechanical Properties Section, 107  
 Picklesimer, M.L., Consultant, 139  
 Univ. of Virginia, Department of Material Sciences, 167  
 Univ. of Washington, Department of Mechanical Engineering, 168  
 Univ. of Wisconsin, Engineering Experiment Station 169  
 Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech. 171
- Failure mechanisms**  
*see Failure*
- Fatigue (materials)**  
 Aerospace Structures Information and Analysis Center 4  
 Atlas Testing Laboratories, Inc., 19  
 Barsom, J. M., Consultant, 25  
 Becker, Herbert, Consultant, 28  
 Canale Research, 37  
 Institute of Fracture and Solid Mechanics, 80
- Fatigue (materials) (cont'd)**  
 Metals Properties Council, Inc., 103  
 Naval Research Laboratory, 118  
 Univ. of Virginia, Dept. of Engineering Sci. and Syst. 166  
 Univ. of Virginia, Department of Material Sciences, 167  
 Univ. of Washington, Department of Mechanical Engineering, 168  
 Univ. of Wisconsin, Engineering Experiment Station 169  
 University of Tennessee, Space Institute, 162  
 Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech. 171
- Ferroelectrics**  
*see Safety equipment*
- Ferrous alloys**  
*see Iron*
- Ferrous metals**  
*see Iron*
- Finishes**  
*see Metallurgy; Protective coatings*
- Finishing (metals)**  
*see Metallurgy*
- Fire accident training**  
*see Fire fighting*
- Fire and explosion chemistry**  
*see Fires*
- Fire and explosion dynamics**  
*see Explosions; Fires*
- Fire detection**  
*see Fire protection*
- Fire, explosion, and detonations**  
*see Explosions; Fires*
- Fire extinguishing agents**  
*see also Fire fighting*  
 Forest Fire Information Project, 66  
 International Association of Fire Chiefs, Inc., 87  
 National Bureau of Standards, Fire Res. Inform. Services 106
- Fire extinguishing testing**  
*see Fire extinguishing agents*
- Fire extinguishment**  
*see Fire extinguishing agents*
- Fire extinguishment methods**  
*see Fire fighting*
- Fire fighting**  
*see also Fire extinguishing agents*  
 American LaFrance Inc., 13  
 Arthur D. Little, Safety and Fire Technology Unit, 17  
 Forest Fire Information Project, 66  
 IIT Research Inst., 76  
 International Association of Fire Chiefs, Inc., 87  
 Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101  
 Office of Hazardous Materials, 130  
 Smoke, Fire and Burn Foundation, Inc., 146  
 U. S. Army Agency for Aviation Safety, 154
- Fire fighting equipment**  
 American LaFrance Inc., 13

- Fire fighting equipment (cont'd)**
- Forest Fire Information Project, 66
  - National Bureau of Standards, Fire Res. Inform. Services 106
  - Naval Air Engineering Center, 117
- Fire fighting services**
- see* Fire fighting
- Fire hazard evaluation**
- see* Fire hazards
- Fire hazards**
- Arthur D. Little, Safety and Fire Technology Unit, 17
  - Boeing Aerospace Co., Safety Engineering, 32
  - Center for Short-Lived Phenomena, 38
  - Church, J. M., Consultant, 39
  - Compressed Gas Association, Inc., 46
  - Consumer Product Safety Commission, 47
  - Forest Fire Information Project, 66
  - Hazards Research Corporation, 75
  - IIT Research Inst., 76
  - Industrial Risk Insurers, 79
  - International Association of Fire Chiefs, Inc., 87
  - Manufacturing Chemists Assn., Information Services 100
  - National Bureau of Standards, Center for Fire Research 104
  - National Bureau of Standards, Fire Res. Inform. Services 106
  - National Forest Products Association, 110
  - New York Univ., Center for Safety, 120
  - Stanford Research Inst., Tech. Inform. Serv., 148
  - University of Utah, Flammability Research Center, 163
- Fire insurance**
- Industrial Risk Insurers, 79
  - National Forest Products Association, 110
- Fire modeling**
- see* Fires
- Fire models**
- see* Fires
- Fire point**
- see* Physical properties
- Fire prevention**
- see also* Fire protection
  - Arthur D. Little, Safety and Fire Technology Unit, 17
  - Boeing Aerospace Co., Product and System Safety Org. 31
  - Church, J. M., Consultant, 39
  - Coast Guard, Cargo and Hazardous Materials Division 41
  - Consumer Product Safety Commission, 47
  - Cranston Research Inc., 51
  - Forest Fire Information Project, 66
  - Government Research Laboratory, 74
  - Industrial Risk Insurers, 79
  - Institute of Gas Technology, 81
  - International Association of Fire Chiefs, Inc., 87
  - Manufacturing Chemists Assn., Information Services 100
  - Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
  - National Bureau of Standards, Center for Fire Research 104
  - National Bureau of Standards, Fire Res. Inform. Services 106
- Fire prevention (cont'd)**
- National Forest Products Association, 110
  - Smoke, Fire and Burn Foundation, Inc., 146
  - Stanford Research Inst., Tech. Inform. Serv., 148
  - Univ. of California, Fire Research Group, 159
  - University of Utah, Flammability Research Center, 163
- Fire protection**
- see also* Fire prevention
  - Government Research Laboratory, 74
  - Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
  - National Bureau of Standards, Center for Fire Research 104
- Fire resistant materials**
- Church, J. M., Consultant, 39
  - Consumer Product Safety Commission, 47
  - Cranston Research Inc., 51
  - IIT Research Inst., 76
  - Industrial Risk Insurers, 79
  - International Association of Fire Chiefs, Inc., 87
  - National Bureau of Standards, Fire Res. Inform. Services 106
  - Stanford Research Inst., Tech. Inform. Serv., 148
  - University of Utah, Flammability Research Center, 163
- Fire retardant materials**
- see* Fire resistant materials
- Fire retardants**
- see* Fire resistant materials
- Fire safety**
- see* Fire prevention; Fire protection
- Fire safety evaluation**
- see* Fire prevention; Fire protection
- Fire simulation**
- see* Fires
- Fire warning**
- see* Fire protection
- Fires**
- see also* Air pollution; Explosions; Forest fires; Smoke
  - Allegany Ballistics Laboratory, 6
  - Arthur D. Little, Safety and Fire Technology Unit, 17
  - Auburn Univ., Materials Engineering Dept., 20
  - Church, J. M., Consultant, 39
  - Forest Fire Information Project, 66
  - IIT Research Inst., 76
  - Industrial Risk Insurers, 79
  - Institute of Safety and Systems Management, Safety Center, 84
  - International Association of Fire Chiefs, Inc., 87
  - National Bureau of Standards, Center for Fire Research 104
  - National Bureau of Standards, Fire Res. Inform. Services 106
  - National Forest Products Association, 110
  - Pennsylvania State Univ., Applied Research Laboratory 135
  - Smoke, Fire and Burn Foundation, Inc., 146
  - Stanford Research Inst., Tech. Inform. Serv., 148
  - Univ. of Arkansas, Chemical Engineering Department 157
  - Univ. of California, Department of Civil Engineering 158
  - Univ. of California, Fire Research Group, 159
  - University of Utah, Flammability Research Center, 163

- Flammability**  
*see* Fire hazards
- Flammability testing**  
*see* Fire hazards
- Flammables**  
*see* Fire hazards
- Flammables disposal**  
*see* Fire hazards
- Flash point**  
*see* Physical properties
- Flight computer**  
*see* Flight instruments
- Flight control**  
 Aviation Safety Institute, 22  
 Aviation Systems Command Reference Library, 24  
 Garbell Research Foundation, 68  
 Professional Air Traffic Controllers Organization, 141
- Flight controls**  
*see* Flight control
- Flight instruments**  
 Garbell Research Foundation, 68  
 Leak, John S., Consultants, 95  
 Professional Air Traffic Controllers Organization, 141
- Flight paths**  
 Aviation Safety Institute, 22  
 Garbell Research Foundation, 68  
 Professional Air Traffic Controllers Organization, 141  
 Univ. of Virginia, Department of Electrical Engineering  
 165
- Flight recorders**  
*see* Flight instruments
- Flight simulation**  
 Aviation Simulations International, 23
- Fluid mechanics**  
 Los Alamos Scientific Lab., Cryogenic Engineering Section, 99  
 National Bureau of Standards, Center for Fire Research  
 104  
 Ohio State Univ., Physiological Fluid Mechanics Res. Grp., 132  
 Univ. of Virginia, Dept. of Engineering Sci. and Syst.  
 166  
 Univ. of Wisconsin, Engineering Experiment Station  
 169
- Fluids**  
*see* Fluid mechanics
- Fluorine**  
 Office of Hazardous Materials, 130
- Forest fires**  
*see also* Fires  
 Forest Fire Information Project, 66  
 National Forest Products Association, 110
- Foundries**  
*see also* Metallurgy  
 American Foundrymen's Society, 11
- Foundry practices**  
*see* Foundries; Metallurgy
- Fracture mechanics**  
 Institute of Fracture and Solid Mechanics, 80  
 Univ. of Washington, Department of Mechanical Engineering, 168
- Fuel farm facilities/operations**  
*see* Fuels
- Fuel handling**  
*see* Fuels
- Fuel storage**  
*see* Fuels
- Fuel transportation**  
*see* Fuels
- Fueling operations**  
*see* Fuels
- Fuels**  
*see also* Aircraft fuels; Propellants  
 Allegany Ballistics Laboratory, 6  
 Arthur D. Little, Safety and Fire Technology Unit, 17  
 Bartlesville Energy Research Center, 26  
 Consumer Product Safety Commission, 47  
 Government Research Laboratory, 74  
 Government-Industry Data Exchange Program, 72  
 Hazards Research Corporation, 75  
 Institute of Gas Technology, 81  
 Lightning and Precipitation Static Test Laboratory, 96  
 Los Alamos Scientific Lab., Cryogenic Engineering Section, 99  
 Naval Air Engineering Center, 117  
 Naval Research Laboratory, 118  
 Pennsylvania State Univ., Applied Research Laboratory  
 135  
 U. S. Army Agency for Aviation Safety, 154  
 U.S. Army Fuels and Lubricants Research Laboratory  
 155  
 York Research Corporation, 175
- Galactic radiation**  
*see* Radiation
- Galvanic corrosion**  
*see* Corrosion
- Gas detectors**  
*see also* Detectors  
 Bartlesville Energy Research Center, 26  
 Institute of Gas Technology, 81
- Geochemistry**  
*see* Earth sciences
- Geology**  
*see* Earth sciences
- Geomagnetism**  
*see* Earth sciences
- Geophysics**  
*see* Earth sciences
- Glass**  
 Cobalt Information Center, 42  
 Electronic Properties Information Center, 60  
 Phase Diagrams for Ceramists, 137
- Gravity**  
*see* Atmospheres; Environments

- Ground recovery facilities**  
*see Recovery*
- Ground recovery operations**  
*see Recovery*
- Ground support systems**  
 Comprehensive University of Dayton On-Line Services  
     44  
 Cosmodyne, 49  
 Cryogenic Consultants, Inc., 53  
 Naval Air Engineering Center, 117
- Handling procedures**  
*see Hazardous materials*
- Hazard detection systems**  
*see Detectors*
- Hazardous characteristics**  
*see Hazardous materials*
- Hazardous materials**  
 Aerotronic Ford Corp. Safety Engineering Section, 2  
 Airport Operators Council International, 5  
 Army Materiel Command Safety Office, 16  
 Arthur D. Little, Safety and Fire Technology Unit, 17  
 Coast Guard, Cargo and Hazardous Materials Division  
     41  
 Compressed Gas Association, Inc., 46  
 Consumer Product Safety Commission, 47  
 Cranston Research Inc., 51  
 Cryogenic Consultants, Inc., 53  
 Food and Drug Administration, Poison Control Program  
     65  
 Franklin-Hahnemann Inst., 67  
 Hazards Research Corporation, 75  
 Industrial Risk Insurers, 79  
 Institute of Gas Technology, 81  
 Institute of Safety and Systems Management, Research  
     Center, 82  
 Institute of Safety and Systems Management, Safety Cen-  
     ter, 84  
 Inst. of Safety and Systems Mgmt., Traffic Safety Center  
     85  
 International Association of Fire Chiefs, Inc., 87  
 National Bureau of Standards, Center for Fire Research  
     104  
 National Bureau of Standards, Fire Res. Inform. Services  
     196  
 National Cargo Bureau, Inc., 108  
 National Center for Health Statistics, 109  
 Natl. Inst. of Occupational Safety and Health, Toxicol.  
     Br., 113  
 Naval Weapons Support Center, 119  
 New York Univ., Center for Safety, 120  
 Office of Hazardous Materials, 130  
 Oil and Hazardous Material Technical Assistance Data  
     System, 133  
 Stanford Research Inst., Toxicology Department, 149  
 Technical Assistance Data System, 153  
 Univ. of Arkansas, Chemical Engineering Department  
     157
- Hazardous materials classification**  
*see Hazardous materials*
- Hazardous materials disposal**  
*see Hazardous materials*
- Hazardous materials identification**  
*see Hazardous materials*
- Hazardous processes**  
*see Hazardous materials*
- Hazards**  
*see Hazardous materials*
- Head gear**  
*see Protective equipment*
- Health hazards**  
*see Physiological hazards*
- Heat dissipation**  
*see Thermodynamics*
- High strength alloys**  
 American Foundrymen's Society, 11  
 Climax Molybdenum Co., 40  
 Cobalt Information Center, 42  
 Georgia Inst. of Technology, Engineering Experiment  
     Station, 71  
 Reynolds Metals Co., Technical Information Services  
     144
- High strength steels**  
*see High strength alloys*
- Highway safety**  
 Cranston Research Inc., 51  
 Federal Highway Administration, 64  
 IIT Research Inst., 76  
 Institute of Safety and Systems Management, Research  
     Center, 82  
 Inst. of Safety and Systems Mgmt., Traffic Safety Center  
     85  
 International Association of Chiefs of Police, 86  
 National Highway Traffic Safety Admin., Tech. Ref. Br.  
     112  
 New York Univ., Center for Safety, 120  
 Northwestern Univ., Transportation Center Library, 126
- Human characteristics**  
*see Human factors engineering; Psychology*
- Human factors**  
*see Human factors engineering*
- Human factors analysis**  
*see Human factors engineering*
- Human factors design**  
*see Human factors engineering*
- Human factors engineering**  
*see also Personnel selection*  
 Aviation Safety Institute, 22  
 Bolt Beranek and Newman, Inc., 36  
 Consumer Product Safety Commission, 47  
 Federal Aviation Administration, Off. of Aviation Medi-  
     cine, 63  
 Franklin-Hahnemann Inst., 67  
 Garbell Research Foundation, 68  
 George Washington Univ., School of Engin. and Appl.  
     Sci., 70  
 Institute of Safety and Systems Management, Research  
     Center, 82  
 Institute of Safety and Systems Management, Safety Cen-  
     ter, 84  
 Inst. of Safety and Systems Mgmt., Traffic Safety Center  
     85  
 Naval Weapons Support Center, 119

- Human factors engineering (cont'd)**
- New York Univ., Center for Safety, 120
  - Northwestern Univ. Tech. Inst., Design and Devel. Center, 125
  - Ohio State Univ., Aviation Medicine Research Laboratory, 131
  - Old Dominion Univ., Performance Assessment Laboratory, 134
  - Pennsylvania State Univ. Lab. for Human Performance Res., 136
  - R. Dixon Speas, Associates, 142
  - Railroad Research Information Service, 143
  - U. S. Army Agency for Aviation Safety, 154
  - Univ. of Pittsburgh, Dept. of Ind. Environ. Health Sci., 161
  - Univ. of Wisconsin, Engineering Experiment Station 169
  - University of Utah, Flammability Research Center, 163
- Human functions**
- see* Human factors engineering
- Human performance**
- Old Dominion Univ., Performance Assessment Laboratory, 134
  - Pennsylvania State Univ. Lab. for Human Performance Res., 136
- Hydraulic engineering**
- see* Hydraulics
- Hydraulic fluids**
- see* Hydraulics
- Hydraulics**
- Allegany Ballistics Laboratory, 6
  - Crane Packing Company, 50
  - Institute of Safety and Systems Management, Safety Center, 84
  - Joint Industrial Council, 92
  - Naval Research Laboratory, 118
  - U.S. Army Fuels and Lubricants Research Laboratory 155
- Hydrogen**
- Cosmodyne, 49
  - Institute of Gas Technology, 81
  - Los Alamos Scientific Lab., Cryogenic Engineering Section, 99
- Hygiene**
- see also* Industrial hygiene
  - Advisory Center on Toxicology, 1
  - Army Environmental Hygiene Agency, Laser-Microwave Div., 15
  - Com. for the Advancement of Public Interest Organizations, 43
- Hypergolic fuels**
- see* Fuels
- Impact**
- see* Accidents
- Incompatibilities**
- see* Corrosion
- Industrial hygiene**
- see also* Hygiene
  - Advisory Center on Toxicology, 1
  - Aeronutronic Ford Corp. Safety Engineering Section, 2
  - Franklin-Hahnemann Inst., 67
  - Institute of Safety and Systems Management, Safety Center, 84
  - Natl. Inst. of Occupational Safety and Health, Toxicol. Br., 113
  - Naval Weapons Support Center, 119
  - New York Univ., Center for Safety, 120
- Industrial processes**
- see* Industrial safety
- Industrial safety**
- Airport Operators Council International, 5
  - American Bureau of Shipping, 10
  - Boeing Aerospace Co., Safety Engineering, 32
  - Canale Research, 37
  - Compressed Gas Association, Inc., 46
  - Cranston Research Inc., 51
  - Cryogenic Consultants, Inc., 53
  - Duke Univ. Eye Center, 56
  - Franklin-Hahnemann Inst., 67
  - General Electric Co., High Voltage Laboratory, 69
  - Institute of Gas Technology, 81
  - Institute of Safety and Systems Management, Safety Center, 84
  - International Safety Academy, 90
  - Manufacturing Chemists Assn., Information Services 100
  - Natl. Inst. of Occupational Safety and Health, Toxicol. Br., 113
  - Naval Weapons Support Center, 119
  - New York Univ., Center for Safety, 120
  - Northwestern Univ. Tech. Inst., Design and Devel. Center, 125
  - Old Dominion Univ., Performance Assessment Laboratory, 134
  - Univ. of California, Fire Research Group, 159
- Industrial safety and health**
- see* Industrial safety
- Information resources**
- see* Information retrieval
- Information retrieval**
- Aluminum Association, Inc., 8
  - American Bureau of Shipping, 10
  - American Inst. of Aeronautics and Astronautics, Inc. 12
  - Battelle Memorial Inst., Library and Information Services, 27
  - Benet Laboratories, Technical Information Services Office, 29
  - Boeing Aerospace Co., Experience Analysis Center, 30
  - Comprehensive University of Dayton On-Line Services 44
  - Cryptanalytic Computer Sciences, Inc., 54
  - Environmental Protection Agency, Off. of Radiation Programs, 62
  - Food and Drug Administration, Poison Control Program 65
  - Franklin-Hahnemann Inst., 67
  - Government-Industry Data Exchange Program, 72
  - Institute of Gas Technology, 81
  - Inst. of Safety and Systems Mgmt., Traffic Safety Center 85
  - International Association of Chiefs of Police, 86
  - Jet Propulsion Lab., 91
  - Knowledge Availability Systems Information Center, 93
  - National Center for Health Statistics, 109
  - National Oceanographic Data Center, 114

- Information retrieval (cont'd)**
- Naval Research Laboratory, 118
  - Nondestructive Testing Data Support Center, 122
  - Oil and Hazardous Material Technical Assistance Data System, 133
  - Old Dominion Univ., Performance Assessment Laboratory, 134
  - Picatinny Arsenal, Scientific and Technical Inform. Div., 138
  - Plastics Technical Evaluation Center, 140
  - Railroad Research Information Service, 143
  - Stanford Research Inst., Tech. Inform. Serv., 148
  - Superconductive Materials Data Center, 151
  - Systems Safety Society, 152
  - Technical Assistance Data System, 153
  - Univ. of California, Fire Research Group, 159
  - Univ. of Virginia, Department of Electrical Engineering 165
  - Vitro Labs., 172
  - World Data Center A: Rockets and Satellites, 174
- Infrared radiation**
- see* Thermal radiation
- Infrared technology**
- see* Thermal radiation
- Initiator materials**
- see* Explosives
- Initiators safety**
- see* Explosives
- Initiators technology**
- see* Explosives
- Inorganic chemistry**
- see* Chemistry
- Inspection**
- Aviation Systems Command Reference Library, 24
  - Boeing Aerospace Co., Sneak Circuit Analysis Group 33
  - Boeing Vertol Co., Product Assurance and System Safety 34
  - Environmental Protection Agency, Off. of Radiation Programs, 62
  - International Conference of Building Officials, 88
  - Nuclear Regulatory Com., Off. of Inspection and Enforcement, 127
- Instrumentation**
- see* Instruments
- Instruments**
- Knowledge Availability Systems Information Center, 93
  - Lightning and Transients Research Inst., 97
  - Naval Research Laboratory, 118
  - Stanford Research Inst., Tech. Inform. Serv., 148
- Interplanetary gases**
- see* Extraterrestrial environments
- Investigations**
- see* Research and development
- Ionizing radiation**
- Armed Forces Institute of Pathology, 14
  - Eastern Environmental Radiation Facility, 69
  - Environmental Protection Agency, Off. of Radiation Programs, 62
  - Oak Ridge Associated Univ., REAC/TS, 128
- Ionizing radiation (cont'd)**
- Oal: Ridge National Laboratory, Health Physics Division 129
- Iron**
- American Bureau of Shipping, 10
  - Cobalt Information Center, 42
- Iron alloys**
- see* Iron
- Irradiation**
- see also* Nuclear radiation
  - Armed Forces Institute of Pathology, 14
  - Oak Ridge Associated Univ., REAC/TS, 128
  - Oak Ridge National Laboratory, Health Physics Division 129
- Irradiation effects**
- see* Irradiation; Nuclear radiation
- Jet propulsion fuels**
- see* Fuels
- Job performance aids**
- see* Personnel development
- Land development**
- see* Environments
- Landing aids**
- see* Navigation aids; Airports
  - Leak, John S., Consultants, 95
  - Naval Air Engineering Center, 117
  - Professional Air Traffic Controllers Organization, 141
  - Univ. of Virginia, Department of Electrical Engineering 165
- Lasers**
- Aeronutronic Ford Corp. Safety Engineering Section, 2
  - American Inst. of Aeronautics and Astronautics, Inc. 12
  - Army Environmental Hygiene Agency, Laser-Microwave Div., 15
  - Duke Univ. Eye Center, 56
  - Government Research Laboratory, 74
  - Picatinny Arsenal, Scientific and Technical Inform. Div., 138
  - Univ. of Virginia, Dept. of Engineering Sci. and Syst. 166
- Lattice defects**
- see* Crystals
- Launch base operations**
- see* Launching
- Launch complexes**
- see* Launching
- Launch operations**
- see* Launching
- Launching**
- Naval Air Engineering Center, 117
  - Vitro Labs., 172
  - World Data Center A: Rockets and Satellites, 174
- Life sciences**
- American Inst. of Aeronautics and Astronautics, Inc. 12
  - Center for Short-Lived Phenomena, 38
  - Com. for the Advancement of Public Interest Organizations, 43
  - Dalton Research Center, 55

- Life sciences (cont'd)**
- Georgia Inst. of Technology, Engineering Experiment Station, 71
  - National Oceanographic Data Center, 114
- Life support**
- see* Life support systems
- Life support design**
- see* Life support systems
- Life support systems**
- Com. for the Advancement of Public Interest Organizations, 43
- Lightning**
- Boeing Aerospace Co., Safety Engineering, 32
  - General Electric Co., High Voltage Laboratory, 69
  - Lightning and Precipitation Static Test Laboratory, 96
  - Lightning and Transients Research Inst., 97
  - McDonnell Aircraft Co., Lightning Simulation Laboratory, 102
- Lightning strokes**
- see* Lightning
- Liquid propellants**
- see* Propellants
- Liquified gases**
- Army Materiel Command Safety Office, 16
  - Arthur D. Little, Safety and Fire Technology Unit, 17
  - Bartlesville Energy Research Center, 26
  - Coast Guard, Cargo and Hazardous Materials Division, 41
  - Compressed Gas Association, Inc., 46
  - Cosmodyne, 49
  - Cryogenic Consultants, Inc., 53
  - Institute of Gas Technology, 81
  - International Association of Fire Chiefs, Inc., 87
  - Los Alamos Scientific Lab., Cryogenic Engineering Section, 99
  - Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
  - Metals Properties Council, Inc., 103
  - Office of Hazardous Materials, 130
  - Univ. of Arkansas, Chemical Engineering Department, 157
  - York Research Corporation, 175
- Low temperatures**
- see* Meteorology
- Lubricants**
- Allegany Ballistics Laboratory, 6
  - Naval Research Laboratory, 118
  - U.S. Army Fuels and Lubricants Research Laboratory, 155
- Machinery**
- see* Safety analysis; Safety equipment
- Machinery safety**
- see* Safety analysis; Safety equipment
- Machining**
- see* Metallurgy
- Magnetic fields**
- see* Magnetic properties
- Magnetic properties**
- Cobalt Information Center, 42
  - Electronic Properties Information Center, 60
- Magnetic properties (cont'd)**
- National Bureau of Standards, Mechanical Properties Section, 107
  - Nondestructive Testing Data Support Center, 122
  - Underground Excavation and Rock Properties Inform. Center, 156
- Maintainability**
- see* Maintenance
- Maintainability assurance**
- see* Maintenance
- Maintenance**
- American Bureau of Shipping, 10
  - Aviation Systems Command Reference Library, 24
  - Boeing Vertol Co., Product Assurance and System Safety, 34
  - Government-Industry Data Exchange Program, 72
  - IIT Research Inst., 76
  - R. Dixon Spears, Associates, 142
  - Railroad Research Information Service, 143
- Maintenance facilities**
- see* Maintenance
- Maintenance operations**
- see* Maintenance
- Man machine hazards**
- see* Human factors engineering
- Man-made debris**
- see* Waste disposal
- Material processes engineering**
- see* Materials
- Material properties**
- see* Materials
- Material removal**
- see* Materials
- Material types**
- see* Materials
- Materials**
- see also* Composite materials
  - American Inst. of Aeronautics and Astronautics, Inc., 12
  - Auburn Univ., Materials Engineering Dept., 20
  - Harsom, J. M., Consultant, 25
  - Battelle Memorial Inst., Library and Information Services, 27
  - Benet Laboratories, Technical Information Services Office, 29
  - Boeing Aerospace Co., Product and System Safety Org., 31
  - Center for Short-Lived Phenomena, 38
  - Crane Packing Company, 50
  - Electronic Properties Information Center, 60
  - Georgia Inst. of Technology, Engineering Experiment Station, 71
  - Government-Industry Data Exchange Program, 72
  - IIT Research Inst., 76
  - International Conference of Building Officials, 88
  - Lightning and Precipitation Static Test Laboratory, 96
  - Metals Properties Council, Inc., 103
  - National Bureau of Standards, Mechanical Properties Section, 107
  - Nondestructive Testing Data Support Center, 122
  - Plastics Technical Evaluation Center, 140

- Materials (cont'd)**
- Reynolds Metals Co., Technical Information Services  
        144
  - Soc. for the Advancement of Material and Process En-gin., 147
  - Superconductive Materials Data Center, 151
  - Univ. of Virginia, Department of Civil Engineering, 164
  - Univ. of Virginia, Dept. of Engineering Sci. and Syst.  
        166
  - Univ. of Virginia, Department of Material Sciences, 167
  - Valley Forge Sp. Cent., Plastics and Adv. Composites  
        Lab., 170
  - Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech.  
        171
- Materials evaluation**  
*see* Materials tests; Test equipment
- Materials properties**  
*see* Materials
- Materials research**  
*see* Materials
- Materials standardization**  
*see* Materials
- Materials tests**  
*see also* Tests
- American Bureau of Shipping, 10
  - Arthur D. Little, Safety and Fire Technology Unit, 17
  - Atlas Testing Laboratories, Inc., 19
  - Compressed Gas Association, Inc., 46
  - Crane Packing Company, 50
  - Georgia Inst. of Technology, Engineering Experiment  
        Station, 71
  - Institute of Fracture and Solid Mechanics, 80
  - Metals Properties Council, Inc., 103
  - National Bureau of Standards, Fire Res. Inform. Services  
        106
  - Univ. of Virginia, Department of Civil Engineering, 164
  - Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech.  
        171
- Materials types**  
*see* Materials
- Mathematical sciences**  
*see* Mathematics
- Mathematics**
- Allegany Ballistics Laboratory, 6
  - American Inst. of Aeronautics and Astronautics, Inc.  
        12
  - Battelle Memorial Inst., Library and Information Ser-vices, 27
  - Renet Laboratories, Technical Information Services Of-fice, 29
  - Boeing Aerospace Co., Experience Analysis Center, 30
  - Knowledge Availability Systems Information Center, 93
  - University of Tennessee, Space Institute, 162
- Mechanical engineering**
- American Bureau of Shipping, 10
  - Atlas Testing Laboratories, Inc., 19
  - Auburn Univ., Materials Engineering Dept., 20
  - Boeing Aerospace Co., Experience Analysis Center, 30
  - Crane Packing Company, 50
  - Government-Industry Data Exchange Program, 72
  - Institute of Fracture and Solid Mechanics, 80
  - Knowledge Availability Systems Information Center, 93
  - Metals Properties Council, Inc., 103
- Mechanical engineering (cont'd)**
- Univ. of California, Fire Research Group, 159
  - Univ. of Washington, Department of Mechanical Engi-neering, 168
  - Univ. of Wisconsin, Engineering Experiment Station  
        169
  - University of Tennessee, Space Institute, 162
- Mechanical properties**
- see also* Physical properties
  - American Foundrymen's Society, 11
  - Cobalt Information Center, 42, 42
  - Georgia Inst. of Technology, Engineering Experiment  
        Station, 71
  - Institute of Fracture and Solid Mechanics, 80
  - Metals Properties Council, Inc., 103
  - National Bureau of Standards, Mechanical Properties  
        Section, 107
  - Underground Excavation and Rock Properties Inform.  
        Center, 156
- Mechanics**  
*see* Mechanical engineering
- Mechanics of structural failure**  
*see* Structural failure
- Medical sciences**  
*see* Medicine
- Medicine**
- see also* Aerospace medicine
  - American Inst. of Aeronautics and Astronautics, Inc.  
        12
  - Armed Forces Institute of Pathology, 14
  - Auburn Univ., Materials Engineering Dept., 20
  - Com. for the Advancement of Public Interest Orga-nizations, 43
  - Cryptanalytic Computer Sciences, Inc., 54
  - Dalton Research Center, 55
  - Federal Aviation Administration, Off. of Aviation Medi-cine, 63
  - National Center for Health Statistics, 109
  - Ohio State Univ., Physiological Fluid Mechanics Res.  
        Grp., 132
  - Ohio State Univ., Aviation Medicine Research Laborato-ry, 131
- Metal powders**  
*see* Metallurgy
- Metallic coatings**  
*see* Metallurgy; Protective coatings
- Metallography**  
*see* Metallurgy
- Metallurgical processes**  
*see* Metallurgy
- Metallurgy**
- see also* Aluminum; Foundries; Protective coatings
  - Aluminum Association, Inc., 8
  - American Bureau of Shipping, 10
  - American Foundrymen's Society, 11
  - Atlas Testing Laboratories, Inc., 19
  - Barsom, J. M., Consultant, 25
  - Battelle Memorial Inst., Library and Information Ser-vices, 27
  - Renet Laboratories, Technical Information Services Of-fice, 29
  - Climax Molybdenum Co., 40

- Metallurgy (cont'd)**
- Cobalt Information Center, 42
  - Metals Properties Council, Inc., 103
  - National Bureau of Standards, Mechanical Properties Section, 107
  - Reynolds Metals Co., Technical Information Services 144
  - Univ. of Virginia, Department of Material Sciences, 167
  - University of Tennessee, Space Institute, 162
- Metals**
- see* Metallurgy
- Metals and alloys**
- see* Metallurgy
- Meteorological consideration**
- see* Meteorology
- Meteorology**
- Garbell Research Foundation, 68
  - National Oceanographic Data Center, 114
  - York Research Corporation, 175
- Methane**
- Institute of Gas Technology, 81
- Microwave theory**
- see* Microwaves
- Microwaves**
- Army Environmental Hygiene Agency, Laser-Microwave Div., 15
  - Earth Resources Observation Systems Data Center, 57
  - Univ. of Virginia, Department of Electrical Engineering 165
- Mill process**
- see* Metallurgy
- Mining**
- Bartlesville Energy Research Center, 26
  - Earth Resources Observation Systems Data Center, 57
  - Underground Excavation and Rock Properties Inform. Center, 156
  - Univ. of Wisconsin, Engineering Experiment Station 169
- ..Isotopes**
- Aerionutronic Ford Corp. Safety Engineering Section, 2
  - Arthur D. Little, Safety and Fire Technology Unit, 17
  - Boeing Aerospace Co., Experience Analysis Center, 30
  - Boeing Aerospace Co., Product and System Safety Org. 31
  - Government-Industry Data Exchange Program, 72
  - Soc. for the Advancement of Material and Process Engrin., 147
  - Vitro Labs., 172
- Mission control facilities**
- see* Spacecraft control
- Molecular structure**
- Univ. of Virginia, Department of Material Sciences, 167
- Molybdenum**
- Climax Molybdenum Co., 40
  - Metals Properties Council, Inc., 103
  - York Research Corporation, 175
- Monitoring**
- see* Safety equipment
- Munitions**
- see* Explosives
- Navigation**
- see* Navigation aids
- Navigation aids**
- see also* Airports; Landing aids
  - Center for Short-Lived Phenomena, 38
  - Government-Industry Data Exchange Program, 72
  - Naval Air Engineering Center, 117
  - Professional Air Traffic Controllers Organization, 141
  - R. Dixon Spears, Associates, 142
- Navigation equipment**
- see* Navigation aids
- Navigation systems**
- see* Navigation aids
- Nitrogen**
- Cosmodyne, 49
- Noise**
- see* Noise (sound)
- Noise (sound)**
- Airport Operators Council International, 5
  - Bolt Beranek and Newman, Inc., 36
  - Old Dominion Univ., Performance Assessment Laboratory, 134
  - University of Tennessee, Space Institute, 162
- Nondestructive evaluation**
- Earth Resources Observation Systems Data Center, 57
  - Georgia Inst. of Technology, Engineering Experiment Station, 71
  - IIT Research Inst., 76
  - Nondestructive Testing Data Support Center, 122
  - Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech. 171
- Nondestructive inspection**
- see* Nondestructive evaluation
- Nondestructive tests**
- see* Nondestructive evaluation
- Novel materials**
- see* Materials
- Nuclear blast**
- see* Nuclear explosions
- Nuclear energy**
- Eastern Environmental Radiation Facility, 59
  - Los Alamos Scientific Lab., Cryogenic Engineering Section, 99
- Nuclear engineering**
- see also* Nuclear energy
  - Battelle Memorial Inst., Library and Information Services, 27
  - Government-Industry Data Exchange Program, 72
  - Univ. of Wisconsin, Engineering Experiment Station 169
- Nuclear explosions**
- Underground Excavation and Rock Properties Inform. Center, 156
- Nuclear facilities**
- see* Nuclear energy

Nuclear fuels  
    *see* Nuclear energy

Nuclear instrumentation  
    *see* Nuclear energy

Nuclear physics  
    American Inst. of Aeronautics and Astronautics, Inc.  
        12

Battelle Memorial Inst., Library and Information Services, 27

Center for Short-Lived Phenomena, 38

Eastern Environmental Radiation Facility, 59

Government-Industry Data Exchange Program, 72

Los Alamos Scientific Lab., Cryogenic Engineering Section, 99

Nuclear power  
    *see* Nuclear energy

Nuclear power plant operation  
    *see* Nuclear power plants

Nuclear power plant safety design  
    *see* Nuclear power plants

Nuclear power plants  
    Cosmodyne, 49

Eastern Environmental Radiation Facility, 59

Environmental Protection Agency, Off. of Radiation Programs, 62

Univ. of Michigan, Radiological Health Program, 160

Nuclear radiation  
    *see also* Irradiation

Eastern Environmental Radiation Facility, 59

Environmental Protection Agency, Off. of Radiation Programs, 62

Naval Research Laboratory, 118

Nondestructive Testing Data Support Center, 122

Oak Ridge Associated Univ., REAC/TS, 128

Oak Ridge National Laboratory, Health Physics Division  
    129

Univ. of Michigan, Radiological Health Program, 160

World Data Center A: Rockets and Satellites, 174

Nuclear reactor applications  
    *see* Nuclear power plants; Nuclear reactors

Nuclear reactors  
    Boeing Aerospace Co., Product and System Safety Org.  
        31

Nuclear safety  
    *see* Reactor safety

Nuclear sciences  
    *see* Nuclear engineering; Nuclear physics

Numerical control  
    *see* Safety equipment

Nutrition  
    Com. for the Advancement of Public Interest Organizations, 43

Occupational safety and health  
    *see* Industrial hygiene; Industrial safety

Oceanography  
    American Inst. of Aeronautics and Astronautics, Inc.  
        12

Earth Resources Observation Systems Data Center, 57

National Oceanographic Data Center, 114

Oils

Bartlesville Energy Research Center, 26

Naval Air Engineering Center, 117

Oil and Hazardous Material Technical Assistance Data System, 133

Technical Assistance Data System, 153

U.S. Army Fuels and Lubricants Research Laboratory  
    155

York Research Corporation, 175

Operations research

Boeing Aerospace Co., Safety Engineering, 32

George Washington Univ., School of Engin. and Appl. Sci., 70

Hazards Research Corporation, 75

IIT Research Inst., 76

Northwestern Univ., Transportation Center Library, 126

Picatinny Arsenal, Scientific and Technical Inform. Div.  
    138

Optical properties  
    *see* Physical properties

Organic chemistry  
    *see* Chemistry

Oxidation

Coast Guard, Cargo and Hazardous Materials Division  
    41

Oxidation Inhibitors  
    *see* Oxidation

Oxidation stability  
    *see* Oxidation

Oxygen

Cosmodyne, 49

Institute of Gas Technology, 81

National Oceanographic Data Center, 114

Passengers

Airport Operators Council International, 5

Pathology

Armed Forces Institute of Pathology, 14

Pavements

Austin Research Engineers, Inc., 21

Performance data  
    *see* Information retrieval

Personal protective equipment  
    *see* Protective equipment

Personnel certification  
    *see* Personnel selection

Personnel development  
    *see also* Education

Boeing Aerospace Co., Product and System Safety Org.  
    31

Bolt Beranek and Newman, Inc., 36

Comprehensive University of Dayton On-Line Services  
    44

Forest Fire Information Project, 66

Hazards Research Corporation, 75

Institute of Gas Technology, 81

International Association of Chiefs of Police, 86

International Association of Fire Chiefs, Inc., 87

International Safety Academy, 90

Naval Weapons Support Center, 119

Oak Ridge Associated Univ., REAC/TS, 128

- Personnel development (cont'd)**
- Old Dominion Univ., Performance Assessment Laboratory, 134
  - Professional Air Traffic Controllers Organization, 141
- Personnel selection**
- see also* Human factors engineering
  - Old Dominion Univ., Performance Assessment Laboratory, 134
- Personnel subsystems**
- see* Personnel selection
- Personnel training**
- see* Personnel development
- Petroleum**
- see* Oils
- Physical characteristics**
- see* Mechanical properties; Physical properties
- Physical chemistry**
- see* Chemistry
- Physical metallurgy**
- see* Metallurgy
- Physical properties**
- see also* Mechanical properties; Thermodynamics
  - Electronic Properties Information Center, 60
  - General Electric Co., High Voltage Laboratory, 69
  - Georgia Inst. of Technology, Engineering Experiment Station, 71
  - Institute of Fracture and Solid Mechanics, 80
  - Los Alamos Scientific Lab., Cryogenic Engineering Section, 99
  - Phase Diagrams for Ceramists, 137
- Physical sciences**
- see* Physics
- Physics**
- American Inst. of Aeronautics and Astronautics, Inc., 12
  - Battelle Memorial Inst., Library and Information Services, 27
  - Bent Laboratories, Technical Information Services Office, 29
  - Center for Short-Lived Phenomena, 38
  - Comprehensive University of Dayton On-Line Services 44
  - International Planetary Patrol, 89
  - Jet Propulsion Lab., 91
  - Knowledge Availability Systems Information Center, 93
  - Los Alamos Scientific Lab., Cryogenic Engineering Section, 99
  - National Bureau of Standards, Center for Fire Research 104
  - Naval Research Laboratory, 118
  - Northern Arizona Univ., Dept. of Physics, 124
  - Picatinny Arsenal, Scientific and Technical Inform. Div. 138
  - Univ. of California, Fire Research Group, 159
  - Univ. of Virginia, Department of Material Sciences, 167
  - University of Tennessee, Space Institute, 162
  - World Data Center A: Rockets and Satellites, 174
- Physiological effects**
- see* Physiology
- Physiological hazards**
- Armed Forces Institute of Pathology, 14
- Physiological hazards (cont'd)**
- Army Environmental Hygiene Agency, Laser-Microwave Div., 15
  - Army Materiel Command Safety Office, 16
  - Boeing Aerospace Co., Safety Engineering, 32
  - Com. for the Advancement of Public Interest Organizations, 43
  - Comprehensive University of Dayton On-Line Services 44
  - Consumer Product Safety Commission, 47
  - Cryptanalytic Computer Sciences, Inc., 54
  - Duke Univ. Eye Center, 56
  - Environmental Protection Agency, Off. of Radiation Programs, 62
  - Franklin-Hahnemann Inst., 67
  - Indiana University, Physiology Department, 78
  - International Safety Academy, 90
  - Manufacturing Chemists Assn., Information Services 100
  - National Bureau of Standards, Center for Fire Research 104
  - Natl. Inst. of Occupational Safety and Health, Toxicol. Br., 113
  - New York Univ., Center for Safety, 120
  - Nuclear Regulatory Com., Off. of Inspection and Enforcement, 127
  - Ohio State Univ., Physiological Fluid Mechanics Res. Grp., 132
  - Pennsylvania State Univ. Lab. for Human Performance Res., 136
  - Stanford Univ., Clinical Psychopharm. and Psychophys. Lab., 150
  - Univ. of Pittsburgh, Dept. of Ind. Environ. Health Sci. 161
- Physiological stress**
- see* Physiology
- Physiology**
- Armed Forces Institute of Pathology, 14
  - Com. for the Advancement of Public Interest Organizations, 43
  - Cryptanalytic Computer Sciences, Inc., 54
  - Dalton Research Center, 55
  - Duke Univ. Eye Center, 56
  - Federal Aviation Administration, Off. of Aviation Medicine, 63
  - Franklin-Hahnemann Inst., 67
  - Indiana University, Physiology Department, 78
  - National Center for Health Statistics, 109
  - Ohio State Univ., Physiological Fluid Mechanics Res. Grp., 132
  - Pennsylvania State Univ. Lab. for Human Performance Res., 136
  - Stanford Univ., Clinical Psychopharm. and Psychophys. Lab., 150
  - Univ. of Pittsburgh, Dept. of Ind. Environ. Health Sci. 161
  - University of Utah, Flammability Research Center, 163
- Planetary research**
- see* Astronomy
- Plasma physics**
- see* Nuclear physics
- Plastics**
- Church, J. M., Consultant, 39
  - Electronic Properties Information Center, 60

- Plastics (cont'd)**
- National Bureau of Standards, Fire Res. Inform. Services  
106
  - Picatinny Arsenal, Scientific and Technical Inform. Div.  
138
  - Plastics Technical Evaluation Center, 140
  - Stanford Research Inst., Tech. Inform. Serv., 148
  - Univ. of Virginia, Dept. of Engineering Sci. and Syst.  
166
  - Univ. of Virginia, Department of Material Sciences, 167
  - University of Utah, Flammability Research Center, 163
  - Valley Forge Sp. Cent., Plastics and Adv. Composites  
Lab., 170
- Pneumatic components**  
*see* Pneumatic equipment
- Pneumatic equipment**
- Joint Industrial Council, 92
- Powder metallurgy**  
*see* Metallurgy
- Power sources**  
*see* Power supplies
- Power supplies**
- Cryptanalytic Computer Sciences, Inc., 54
  - Los Alamos Scientific Lab., Cryogenic Engineering Section, 99
- Precious metals**  
*see* Metallurgy
- Pressure reduction**  
*see* Rescue operations
- Primary fabrication**  
*see* Fabrication
- Product safety**
- Aeronutronic Ford Corp. Safety Engineering Section, 2
  - Boeing Aerospace Co., Product and System Safety Org.  
31
  - Boeing Vertol Co., Product Assurance and System Safety  
34
  - Consumer Product Safety Commission, 47
- Propellants**
- see also* Fuels
  - Allegany Ballistics Laboratory, 6
  - American Inst. of Aeronautics and Astronautics, Inc.  
12
  - Arthur D. Little, Safety and Fire Technology Unit, 17
  - Hazards Research Corporation, 75
  - IIT Research Inst., 76
  - Naval Research Laboratory, 118
  - Picatinny Arsenal, Scientific and Technical Inform. Div.  
138
  - Roylance, Herbert M., Consultant, 145
  - Washington College, 173
- Propellants and fuels**  
*see* Fuels; Propellants
- Propulsion**
- American Inst. of Aeronautics and Astronautics, Inc.  
12
  - Government-Industry Data Exchange Program, 72
  - Soc. for the Advancement of Material and Process Engin., 135
  - Society for the Advancement of Material and Process  
Engineer, 147
- Propulsion system performance**
- Aerospace Corp., Energy & Transportation Division, 3
  - American Bureau of Shipping, 10
  - Boeing Aerospace Co., Product and System Safety Org.  
31
  - Naval Air Engineering Center, 117
  - Railroad Research Information Service, 143
- Propulsion types**  
*see* Propulsion system performance
- Protective coatings**
- Cobalt Information Center, 42
- Protective equipment**
- Coast Guard, Cargo and Hazardous Materials Division  
41
  - Com. for the Advancement of Public Interest Orga-  
nizations, 43
  - Environmental Protection Agency, Off. of Radiation Pro-  
grams, 62
  - Federal Aviation Administration, Off. of Aviation Medi-  
cine, 63
  - National Bureau of Standards, Fire Res. Inform. Services  
106
  - Pennsylvania State Univ. Lab. for Human Performance  
Res., 136
- Psychological stress**  
*see* Psychology
- Psychology**
- New York Univ., Center for Safety, 120
  - Old Dominion Univ., Performance Assessment Laborato-  
ry, 134
  - Stanford Univ., Clinical Psychopharm. and Psychophys.  
Lab., 150
  - University of Utah, Flammability Research Center, 163
- Pyrotechnic materials**  
*see* Pyrotechnics
- Pyrotechnic safety**  
*see* Pyrotechnics
- Pyrotechnic technology**  
*see* Pyrotechnics
- Pyrotechnics**
- Allegany Ballistics Laboratory, 6
  - Army Materiel Command Safety Office, 16
  - Hazards Research Corporation, 75
  - Picatinny Arsenal, Scientific and Technical Inform. Div.  
138
  - Roylance, Herbert M., Consultant, 145
  - Washington College, 173
- Pyrotechnics safety**  
*see* Pyrotechnics
- Quality assurance**  
*see* Quality control
- Quality certification**  
*see* Quality control
- Quality control**
- Boeing Aerospace Co., Sneak Circuit Analysis Group  
33
  - Government-Industry Data Exchange Program, 72
  - Naval Air Engineering Center, 117
  - Nondestructive Testing Data Support Center, 122

- Quality/distance criteria**  
*see Transportation*
- Radar**  
 Aviation Safety Institute, 22  
 Georgia Inst. of Technology, Engineering Experiment Station, 71
- Radar detection**  
*see Radar*
- Radar navigation**  
*see Radar*
- Radiation**  
 Armed Forces Institute of Pathology, 14  
 Duke Univ. Eye Center, 56  
 Environmental Protection Agency, Off. of Radiation Programs, 62  
 Lockheed Radiation Physics Group, 98  
 Oak Ridge Associated Univ., REAC/TS, 128  
 Oak Ridge National Laboratory, Health Physics Division 129
- Radiation belts**  
 Lockheed Radiation Physics Group, 98
- Radiation damage**  
*see Radiation effects*
- Radiation detection**  
*see Radiation*
- Radiation detectors**  
*see Radiation*
- Radiation effects**  
*see also Radiation*  
 Army Materiel Command Safety Office, 16  
 Boeing Aerospace Co., Safety Engineering, 32  
 Univ. of Michigan, Radiological Health Program, 160  
 Univ. of Virginia, Department of Electrical Engineering 165
- Radiation hazards**  
*see Nuclear radiation*
- Radiation monitoring**  
*see Radiation*
- Radiation physiological effects**  
*see Medicine*
- Radiation protection**  
*see Radiation*
- Radiation resistance**  
*see Radiation*
- Radiation shielding**  
*see Radiation*
- Radiation tolerance**  
*see Radiation*
- Radiation tolerance levels**  
*see Radiation*
- Radio communication systems**  
*see Telecommunications*
- Radio communications**  
*see Telecommunications*
- Radioactive decontamination**  
*see Radioactive spills*
- Radioactive isotopes**  
 Environmental Protection Agency, Off. of Radiation Programs, 62  
 Oak Ridge National Laboratory, Health Physics Division 129
- Radioactive sources**  
 Armed Forces Institute of Pathology, 14
- Radioactive spills**  
 Environmental Protection Agency, Off. of Radiation Programs, 62  
 International Association of Fire Chiefs, Inc., 87
- Radioactive wastes**  
 Eastern Environmental Radiation Facility, 59  
 Environmental Protection Agency, Off. of Radiation Programs, 62  
 Univ. of Michigan, Radiological Health Program, 160
- Radioisotopes applications**  
*see Radioactive isotopes*
- Radionuclides**  
*see Radioactive isotopes*
- Railroad accidents**  
 Railroad Research Information Service, 143
- Railroads**  
 Northwestern Univ., Transportation Center Library, 126  
 Railroad Research Information Service, 143  
 Univ. of Virginia, Dept. of Engineering Sci. and Syst. 166
- Range operations**  
*see Range safety*
- Range safety**  
 General Electric Co., High Voltage Laboratory, 69
- Rare earth information**  
*see Metallurgy*
- Reactor safety**  
 Armed Forces Institute of Pathology, 14  
 Army Materiel Command Safety Office, 16  
 Arthur D. Little, Safety and Fire Technology Unit, 17  
 Battelle Memorial Inst., Library and Information Services, 27  
 Boeing Aerospace Co., Safety Engineering, 32  
 Coast Guard, Cargo and Hazardous Materials Division 41  
 Cosmodyne, 49  
 Cranston Research Inc., 51  
 Environmental Protection Agency, Off. of Radiation Programs, 62  
 Industrial Risk Insurers, 79  
 Metals Properties Council, Inc., 103  
 Naval Research Laboratory, 118  
 New York Univ., Center for Safety, 120  
 Nuclear Regulatory Com., Off. of Inspection and Enforcement, 127  
 Oak Ridge Associated Univ., REAC/TS, 128  
 Oak Ridge National Laboratory, Health Physics Division 129
- Oil and Hazardous Material Technical Assistance Data System**, 133
- Picklesimer, M.L., Consultant, 139  
 Univ. of Michigan, Radiological Health Program, 160  
 Vitro Labs., 172  
 World Data Center A: Rockets and Satellites, 174

- Reactor technology**  
*see Nuclear power plants; Nuclear reactors*
- Reactors**  
*see Nuclear power plants; Nuclear reactors*
- Reciprocating engines**  
*see Engines*
- Recovery**  
 Naval Air Engineering Center, 117
- Recovery systems**  
*see Recovery*
- Reentry**  
*see Aerospace engineering*
- Refining**  
*see Oils*
- Refractories**  
 Phase Diagrams for Ceramists, 137
- Refractory metals**  
*see Metallurgy*
- Regulations**  
*see Safety regulations*
- Reliability**  
 Allegany Ballistics Laboratory, 6  
 Boeing Aerospace Co., Experience Analysis Center, 30  
 Boeing Aerospace Co., Product and System Safety Org., 31  
 Boeing Aerospace Co., Sneak Circuit Analysis Group, 33  
 Canale Research, 37  
 Cryptanalytic Computer Sciences, Inc., 54  
 George Washington Univ., School of Engin. and Appl. Sci., 70  
 Government-Industry Data Exchange Program, 72  
 IIT Research Inst., 76  
 Naval Air Engineering Center, 117
- Reliability analysis**  
*see Reliability*
- Reliability assurance**  
*see Quality control*
- Rescue**  
*see Rescue operations*
- Rescue operations**  
 Compressed Gas Association, Inc., 46  
 International Association of Fire Chiefs, Inc., 87  
 Pennsylvania State Univ. Lab. for Human Performance Res., 136
- Research**  
*see Research and development*
- Research and development**  
 Allegany Ballistics Laboratory, 6  
 Government-Industry Data Exchange Program, 72
- Respiratory equipment**  
*see Breathing apparatus*
- Restraint systems**  
*see Vehicles (land)*
- Restraints**  
*see Vehicles (land)*
- Rocks**  
 Underground Excavation and Rock Properties Inform. Center, 156
- Rubber**  
 Crane Packing Company, 50
- Safety**  
*see Safety procedures*
- Safety analysis**  
*see also Safety equipment*  
 Aeronutronic Ford Corp. Safety Engineering Section, 2  
 Army Materiel Command Safety Office, 16  
 Arthur D. Little, Safety and Fire Technology Unit, 17  
 Becker, Herbert, Consultant, 28  
 Boeing Aerospace Co., Experience Analysis Center, 30  
 Boeing Aerospace Co., Product and System Safety Org., 31  
 Boeing Aerospace Co., Safety Engineering, 32  
 Canale Research, 37  
 Church, J. M., Consultant, 39  
 Comprehensive University of Dayton On-Line Services, 44  
 Consumer Product Safety Commission, 47  
 Cranston Research Inc., 51  
 Cryogenic Consultants, Inc., 53  
 Duke Univ. Eye Center, 56  
 Federal Highway Administration, 64  
 Franklin-Hahnemann Inst., 67  
 Garbell Research Foundation, 68  
 General Electric Co., High Voltage Laboratory, 69  
 Hazards Research Corporation, 75  
 Institute of Safety and Systems Management, Research Center, 82  
 Institute of Safety and Systems Management, Safety Center, 84  
 International Association of Chiefs of Police, 86  
 International Association of Fire Chiefs, Inc., 87  
 International Safety Academy, 90  
 Jet Propulsion Lab., 91  
 Lightning and Precipitation Static Test Laboratory, 96  
 Lightning and Transients Research Inst., 97  
 National Highway Traffic Safety Admin., Tech. Ref. Br., 112  
 National Safety Council, 116  
 Naval Weapons Support Center, 119  
 New York Univ., Center for Safety, 120  
 Northwestern Univ., Transportation Center Library, 126  
 Professional Air Traffic Controllers Organization, 141  
 University of Utah, Flammability Research Center, 163  
 Vitro Labs, 172
- Safety analysis of equipment**  
*see Safety equipment*
- Safety data sheets**  
*see Safety analysis*
- Safety engineering**  
 Allegany Ballistics Laboratory, 6  
 Army Materiel Command Safety Office, 16  
 Aviation Safety Institute, 22  
 Becker, Herbert, Consultant, 28  
 Boeing Aerospace Co., Product and System Safety Org., 31  
 Boeing Aerospace Co., Safety Engineering, 32  
 Canale Research, 37  
 Consumer Product Safety Commission, 47  
 Cranston Research Inc., 51

- Safety engineering (cont'd)**
- Cryogenic Consultants, Inc., 53
  - Franklin-Hahnemann Inst., 67
  - Garbell Research Foundation, 68
  - General Electric Co., High Voltage Laboratory, 69
  - Hazards Research Corporation, 75
  - Industrial Risk Insurers, 79
  - Institute of Safety and Systems Management, Safety Center, 84
  - International Association of Fire Chiefs, Inc., 87
  - Lightning and Transients Research Inst., 97
  - National Bureau of Standards, Center for Fire Research 104
  - New York Univ., Center for Safety, 120
  - Systems Safety Society, 152
  - University of Utah, Flammability Research Center, 163
- Safety equipment**
- see also* Safety analysis
  - American Bureau of Shipping, 10
  - Boeing Aerospace Co., Product and System Safety Org. 31
  - Boeing Aerospace Co., Sneak Circuit Analysis Group 33
  - Boeing Vertol Co., Product Assurance and System Safety 34
  - Canale Research, 37
  - Cranston Research Inc., 51
  - Cryogenic Consultants, Inc., 53
  - Garbell Research Foundation, 68
  - General Electric Co., High Voltage Laboratory, 69
  - Hazards Research Corporation, 75
  - International Safety Academy, 90
- Safety laws**
- see* Safety regulations
- Safety manuals**
- see* Safety regulations
- Safety practices**
- see* Safety procedures
- Safety procedures**
- Boeing Aerospace Co., Product and System Safety Org. 31
  - Canale Research, 37
  - Church, J. M., Consultant, 39
  - Compressed Gas Association, Inc., 46
  - Cryogenic Consultants, Inc., 53
  - Environmental Protection Agency, Off. of Radiation Programs, 62
  - Garbell Research Foundation, 68
  - General Electric Co., High Voltage Laboratory, 69
  - Institute of Gas Technology, 81
  - International Safety Academy, 90
  - Manufacturing Chemists Assn., Information Services 100
  - National Highway Traffic Safety Admin., Tech. Ref. Br. 112
  - Professional Air Traffic Controllers Organization, 141
  - Roylance, Herbert M., Consultant, 145
  - University of Utah, Flammability Research Center, 163
- Safety regulations**
- Army Environmental Hygiene Agency, Laser-Microwave Div., 15
  - Aviation Safety Institute, 22
  - Church, J. M., Consultant, 39
  - Coast Guard, Cargo and Hazardous Materials Division
  - Coast Guard, Cargo and Hazardous Materials Division 41
  - Compressed Gas Association, Inc., 46
  - Consumer Product Safety Commission, 47
  - Cranston Research Inc., 51
  - Cryogenic Consultants, Inc., 53
  - Duke Univ. Eye Center, 56
  - Environmental Protection Agency, Off. of Radiation Programs, 62
  - Institute of Safety and Systems Management, Safety Center, 84
  - International Association of Fire Chiefs, Inc., 87
  - International Conference of Building Officials, 88
  - Lightning and Precipitation Static Test Laboratory, 96
  - Manufacturing Chemists Assn., Information Services 100
  - National Cargo Bureau, Inc., 108
  - National Highway Traffic Safety Admin., Tech. Ref. Br. 112
  - Office of Hazardous Materials, 130
  - Roylance, Herbert M., Consultant, 145
- Safety standards**
- see* Safety regulations
- Sanitation**
- see* Waste disposal
  - Hazards Research Corporation, 75
- Scientific data**
- see* Information retrieval
- Search and rescue**
- see* Rescue operations
- Search and rescue operations**
- see* Rescue operations
- Secondary fabrication**
- see* Fabrication
- Security**
- International Association of Chiefs of Police, 86
- Seismology**
- see* Earth sciences
- Senses**
- see* Physiology
- Sensors**
- Univ. of Virginia, Department of Electrical Engineering 165
- Servicing**
- see* Maintenance
- Shielding**
- Boeing Aerospace Co., Product and System Safety Org. 31
  - Boeing Vertol Co., Product Assurance and System Safety 34
  - Environmental Protection Agency, Off. of Radiation Programs, 62
  - General Electric Co., High Voltage Laboratory, 69
  - Lightning and Precipitation Static Test Laboratory, 96
- Shielding equipment**
- see* Shielding
- Shipping**
- American Bureau of Shipping, 10

- Shipping procedures**  
*see Transportation*
- Shipping regulations**  
 Airport Operators Council International, 5  
 Arthur D. Little, Safety and Fire Technology Unit, 17  
 Coast Guard, Cargo and Hazardous Materials Division  
     41  
 Institute of Gas Technology, 81  
 Manufacturing Chemists Assn., Information Services  
     100  
 National Cargo Bureau, Inc., 108  
 Office of Hazardous Materials, 130
- Shock**  
*see also Vibration*  
 Boeing Aerospace Co., Product and System Safety Org.  
     31  
 Bolt Beranek and Newman, Inc., 36  
 Naval Research Laboratory, 118  
 Underground Excavation and Rock Properties Inform.  
     Center, 156  
 York Research Corporation, 175
- Shock and vibration**  
*see Shock; Vibration*
- Smelting**  
*see Metallurgy*
- Smoke**  
*see also Air pollution; Fires*  
 Smoke, Fire and Burn Foundation, Inc., 146  
 Stanford Research Inst., Tech. Inform. Serv., 148  
 Washington College, 173
- Smoke detectors**  
*see Air pollution*
- Soil mechanics**  
*see Earth sciences*
- Solar radiation**  
 Government Research Laboratory, 74  
 Lockheed Radiation Physics Group, 98  
 Naval Research Laboratory, 118  
 World Data Center A: Rockets and Satellites, 174
- Solid state physics**  
*see Physics*
- Space sciences**  
*see Aerospace engineering*
- Space vehicle problems**  
*see Spacecraft*
- Spacecraft**  
 American Astronautical Society, 9  
 Boeing Aerospace Co., Experience Analysis Center, 30  
 Earth Resources Observation Systems Data Center, 57  
 Jet Propulsion Lab., 91  
 Los Alamos Scientific Lab., Cryogenic Engineering Sec.  
     tion, 99  
 National Bureau of Standards, Fire Res. Inform. Services  
     106  
 University of Utah, Flammability Research Center, 163  
 Valley Forge Sp. Cent., Plastics and Adv. Composites  
     Lab., 170  
 World Data Center A: Rockets and Satellites, 174
- Spacecraft control**  
 Comprehensive University of Dayton On-Line Services  
     44
- Specific heat**  
*see Physical properties; Thermodynamics*
- Stainless steel**  
*see Steels*
- Standard reference**  
*see Information retrieval*
- Standards**  
 Aluminum Association, Inc., 8  
 American Bureau of Shipping, 10  
 Army Environmental Hygiene Agency, Laser-Microwave  
     Div., 15  
 Aviation Safety Institute, 22  
 Becker, Herbert, Consultant, 28  
 Cranston Research Inc., 51  
 Duke Univ. Eye Center, 56  
 International Conference of Building Officials, 88  
 Joint Industrial Council, 92  
 National Bureau of Standards, Center for Fire Research  
     104  
 National Forest Products Association, 110  
 National Highway Traffic Safety Admin., Tech. Ref. Br.  
     112  
 Phase Diagrams for Ceramists, 137  
 Superconductive Materials Data Center, 151
- State-of-the-art reviews**  
*see Information retrieval*
- Statistics**  
 National Center for Health Statistics, 109
- Statutes**  
*see Standards*
- Steel alloys**  
*see Steels*
- Steel construction**  
*see Steels*
- Steels**  
 American Bureau of Shipping, 10  
 Barsom, J. M., Consultant, 25  
 Cobalt Information Center, 42
- Storage procedures**  
*see Hazardous materials*
- Stress**  
*see Stress analysis*
- Stress analysis**  
 Aerospace Structures Information and Analysis Center  
     4  
 Atlas Testing Laboratories, Inc., 19  
 Aviation Systems Command Reference Library, 24  
 Boeing Aerospace Co., Product and System Safety Org.  
     31  
 National Forest Products Association, 110  
 Old Dominion Univ., Performance Assessment Laborato-  
     ry, 134  
 Univ. of Wisconsin, Engineering Experiment Station  
     169  
 Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech.  
     171
- Stress/strain analysis**  
*see Stress analysis*

- Structural dynamics**  
*see Structural engineering*
- Structural engineering**  
*see also Structural failure; Structural materials*
- Aerospace Corp., Energy & Transportation Division, 3
  - Aerospace Structures Information and Analysis Center 4
  - American Bureau of Shipping, 10
  - American Inst. of Aeronautics and Astronautics, Inc. 12
  - Auburn Univ., Materials Engineering Dept., 20
  - Austin Research Engineers, Inc., 21
  - Barsom, J. M., Consultant, 25
  - Becker, Herbert, Consultant, 28
  - Boeing Aerospace Co., Product and System Safety Org. 31
  - Boeing Vertol Co., Product Assurance and System Safety 34
  - Comprehensive University of Dayton On-Line Services 44
  - Federal Aviation Administration, Off. of Aviation Medicine, 63
  - Institute of Fracture and Solid Mechanics, 80
  - International Association of Fire Chiefs, Inc., 87
  - International Conference of Building Officials, 88
  - Jet Propulsion Lab., 91
  - National Forest Products Association, 110
  - New York Univ., Center for Safety, 120
  - Univ. of California, Department of Civil Engineering 158
  - Univ. of Virginia, Department of Civil Engineering, 164
  - Univ. of Wisconsin, Engineering Experiment Station 169
  - University of Tennessee, Space Institute, 162
- Structural failure**  
*see also Structural engineering; Structural materials*
- Aerospace Structures Information and Analysis Center 4
  - Auburn Univ., Materials Engineering Dept., 20
  - Becker, Herbert, Consultant, 28
  - Comprehensive University of Dayton On-Line Services 44
  - Institute of Fracture and Solid Mechanics, 80
  - Institute of Safety and Systems Management, Safety Center, 84
  - National Bureau of Standards, Mechanical Properties Section, 107
  - Univ. of Virginia, Dept. of Engineering Sci. and Syst. 166
  - University of Tennessee, Space Institute, 162
- Structural materials**  
*see also Structural engineering; Structural failure*
- American Bureau of Shipping, 10
  - Austin Research Engineers, Inc., 21
  - Becker, Herbert, Consultant, 28
  - Center for Short-Lived Phenomena, 38
  - Federal Aviation Administration, Off. of Aviation Medicine, 63
  - IIT Research Inst., 76
  - Industrial Risk Insurers, 79
  - Institute of Safety and Systems Management, Safety Center, 84
  - International Association of Fire Chiefs, Inc., 87
  - International Conference of Building Officials, 88
  - National Bureau of Standards, Center for Fire Research 104
- Structural materials (cont'd)**
- National Bureau of Standards, Fire Res. Inform. Services 106
  - National Forest Products Association, 110
  - Naval Research Laboratory, 118
  - Nondestructive Testing Data Support Center, 122
  - Univ. of California, Department of Civil Engineering 158
  - Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech. 159
  - Univ. of Virginia, Department of Civil Engineering, 164
  - Univ. of Virginia, Dept. of Engineering Sci. and Syst. 166
  - University of Utah, Flammability Research Center, 163
  - Virginia Polytechnic Inst., Dept. of Engineering Science an, 171
- Structural materials limitations**  
*see Structural engineering*
- Structural mechanics**  
*see Structural engineering*
- Superconductors**
- Los Alamos Scientific Lab., Cryogenic Engineering Section, 99
  - Superconductive Materials Data Center, 151
  - Univ. of Virginia, Dept. of Engineering Sci. and Syst. 166
- Survival**
- Boeing Vertol Co., Product Assurance and System Safety 34
  - Federal Aviation Administration, Off. of Aviation Medicine, 63
  - Pennsylvania State Univ. Lab. for Human Performance Res., 136
- Systems engineering**
- Austin Research Engineers, Inc., 21
  - Boeing Aerospace Co., Product and System Safety Org. 31
  - Boeing Vertol Co., Product Assurance and System Safety 34
  - Canale Research, 37
  - Cranston Research Inc., 51
  - Cryogenic Consultants, Inc., 53
  - Cryptanalytic Computer Sciences, Inc., 54
  - New York Univ., Center for Safety, 120
  - Systems Safety Society, 152
  - Vitro Labs., 172
- Systems safety**  
*see Systems engineering*
- Technical information**  
*see Information retrieval*
- Telecommunications**
- Earth Resources Observation Systems Data Center, 57
  - Georgia Inst. of Technology, Engineering Experiment Station, 71
- Temperature**  
*see Thermodynamics*
- Test data**  
*see Tests*
- Test equipment**  
*see also Tests*
- Allegany Ballistics Laboratory, 6
  - Arthur D. Little, Safety and Fire Technology Unit, 17

- Test equipment (cont'd)**  
 Cosmodyne, 49  
 Georgia Inst. of Technology, Engineering Experiment Station, 71  
 Government-Industry Data Exchange Program, 72  
 Hazards Research Corporation, 75  
 IIT Research Inst., 76  
 Naval Air Engineering Center, 117
- Test operations**  
*see Tests*
- Test results**  
*see Tests*
- Test techniques**  
*see Tests*
- Tests**  
*see also* Materials tests; Test equipment  
 Institute of Safety and Systems Management, Research Center, 82  
 National Bureau of Standards, Center for Fire Research 104  
 Naval Air Engineering Center, 117  
 Vitro Labs., 172
- Textiles**  
 Church, J. M., Consultant, 39  
 Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101  
 National Bureau of Standards, Fire Res. Inform. Services 106
- Thermal conductivity**  
*see Physical properties; Thermodynamics*
- Thermal energy**  
*see Energy*
- Thermal properties**  
*see Physical properties*
- Thermal radiation**  
 Duke Univ. Eye Center, 56  
 Earth Resources Observation Systems Data Center, 57  
 Lockheed Radiation Physics Group, 98
- Thermal treatment**  
*see Metallurgy*
- Thermochemical properties**  
*see Chemical properties*
- Thermodynamic data**  
*see Thermodynamics*
- Thermodynamic properties**  
*see Thermodynamics*
- Thermodynamics**  
*see also* Physical properties  
 Bartlesville Energy Research Center, 26  
 Benet Laboratories, Technical Information Services Office, 29  
 Garbell Research Foundation, 68  
 Los Alamos Scientific Lab., Cryogenic Engineering Section, 99  
 Superconductive Materials Data Center, 151  
 Underground Excavation and Rock Properties Inform. Center, 156  
 Univ. of Arkansas, Chemical Engineering Department 157
- Titanium**  
 Picklesimer, M.L., Consultant, 139
- Titanium alloys**  
*see Titanium*
- Toxic effects**  
*see Toxicity*
- Toxic gas**  
*see Toxicity*
- Toxic substances**  
*see Toxicity*
- Toxicity**  
 Advisory Center on Toxicology, 1  
 Aeronutronic Ford Corp. Safety Engineering Section, 2  
 Coast Guard, Cargo and Hazardous Materials Division 41  
 Com. for the Advancement of Public Interest Organizations, 43  
 Consumer Product Safety Commission, 47  
 Cryptanalytic Computer Sciences, Inc., 54  
 Food and Drug Administration, Poison Control Program 65  
 Hazards Research Corporation, 75  
 International Safety Academy, 90  
 Manufacturing Chemists Assn., Information Services 100  
 National Bureau of Standards, Center for Fire Research 104  
 National Bureau of Standards, Fire Res. Inform. Service 106  
 Natl. Inst. of Occupational Safety and Health, Toxicol. Br., 113  
 Oil and Hazardous Material Technical Assistance Data System, 133  
 Smoke, Fire and Burn Foundation, Inc., 146  
 Stanford Research Inst., Tech. Inform. Serv., 148  
 Stanford Research Inst., Toxicology Department, 149  
 University of Utah, Flammability Research Center, 163
- Toxicology**  
*see Toxicity*
- Transport properties**  
*see Physical properties*
- Transportation**  
 Aerospace Corp., Energy & Transportation Division, 3  
 Airport Operators Council International, 5  
 Boeing Aerospace Co., Product and System Safety Org. 31  
 Boeing Aerospace Co., Safety Engineering, 32  
 Center for Short-Lived Phenomena, 38  
 Coast Guard, Cargo and Hazardous Materials Division 41  
 Comprehensive University of Dayton On-Line Services 44  
 Compressed Gas Association, Inc., 46  
 Federal Highway Administration, 64  
 Hazards Research Corporation, 75  
 IIT Research Inst., 76  
 Institute of Safety and Systems Management, Research Center, 82  
 Institute of Safety and Systems Management, Safety Center, 84  
 Inst. of Safety and Systems Mgmt., Traffic Safety Center 85  
 National Bureau of Standards, Fire Res. Inform. Services

- Transportation (cont'd)**
- National Bureau of Standards, Fire Res. Inform. Services 106
  - National Highway Traffic Safety Admin., Tech. Ref. Br. 112
  - Northwestern Univ., Transportation Center Library, 126
  - Office of Hazardous Materials, 130
  - Railroad Research Information Service, 143
  - Univ. of Virginia, Dept. of Engineering Sci. and Syst. 166
- Transportation engineering**  
*see* Transportation
- Transportation procedures**  
*see* Transportation
- Transportation regulations**  
*see* Shipping regulations
- Turbine engines**  
*see* Engines
- Upper atmosphere**  
*see* Atmospheres; Environments
- Vehicle fire prevention design**  
*see* Vehicles (land)
- Vehicle fire safety**  
*see* Vehicles (land)
- Vehicle fires**  
*see* Vehicles (land)
- Vehicle subsystems**  
*see* Vehicles (land)
- Vehicles (land)**
  - Comprehensive University of Dayton On-Line Services 44
  - Consumer Product Safety Commission, 47
  - Federal Highway Administration, 64
  - IIT Research Inst., 76
  - Institute of Safety and Systems Management, Research Center, 82
  - Inst. of Safety and Systems Mgmt., Traffic Safety Center 85
  - International Safety Academy, 90
  - Manufacturing Chemists Assn., Information Services 100
  - National Highway Traffic Safety Admin., Tech. Ref. Br. 112
  - Railroad Research Information Service, 143
- Vibration**  
*see also* Shock
- Bolt Beranek and Newman, Inc., 36
  - Naval Research Laboratory, 118
- Vibration (cont'd)**
- Old Dominion Univ., Performance Assessment Laboratory, 134
  - Univ. of Wisconsin, Engineering Experiment Station 169
  - York Research Corporation, 175
- Viscosity**  
*see* Physical properties
- Warning systems**  
*see also* Detectors
- Boeing Vertol Co., Product Assurance and System Safety 34
  - Eastern Environmental Radiation Facility, 59
  - National Bureau of Standards, Fire Res. Inform. Services 106
- Waste disposal**
  - Bartlesville Energy Research Center, 26
  - Hazards Research Corporation, 75
  - Oil and Hazardous Material Technical Assistance Data System, 133
  - Technical Assistance Data System, 153
  - Univ. of Michigan, Radiological Health Program, 160
  - Univ. of Virginia, Department of Civil Engineering, 164
- Waste disposal systems**  
*see* Waste disposal
- Weather modification**  
*see* Meteorology
- Working (metals)**  
*see* Metallurgy
- Wrought aluminum**  
*see* Aluminum; Metallurgy
- X-ray technology**  
*see* X-rays
- X-rays**
  - Environmental Protection Agency, Off. of Radiation Programs, 62
  - National Bureau of Standards, Mechanical Properties Section, 107
  - Nondestructive Testing Data Support Center, 122
  - Univ. of Virginia, Dept. of Engineering Sci. and Syst. 166
- Zirconium**  
 Picklesimer, M.L., Consultant, 139

ORIGINAL PAGE IS  
 OF POOR QUALITY

## Alphabetical List Of Experts

- Adkins, C. J.  
Old Dominion Univ., Performance Assessment Laboratory, 134
- Albaugh, L. R.  
Allegany Ballistics Laboratory, 6
- Allison, G. A.  
Aluminum Association, Inc., 8
- Allan, D. S.  
Arthur D. Little, Safety and Fire Technology Unit, 17
- Allen, M. H.  
Coast Guard, Cargo and Hazardous Materials Division 41
- Alluisi, E. A.  
Old Dominion Univ., Performance Assessment Laboratory, 134
- Altemos, E. A.  
Coast Guard, Cargo and Hazardous Materials Division 41
- Ambrose, J. R.  
National Bureau of Standards, Mechanical Properties Section, 107
- Anzalone, A. M.  
Plastics Technical Evaluation Center, 140
- Appleton, J. P.  
Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
- Armstrong, F. E.  
Bartlesville Energy Research Center, 26
- Ashworth, M.  
Crane Packing Company, 50
- Attalsh, S.  
Arthur D. Little, Safety and Fire Technology Unit, 17
- Bahruskas, V.  
Univ. of California, Fire Research Group, 159
- Baer, A. D.  
University of Utah, Flammability Research Center, 163
- Baird, J. D.  
Institute of Safety and Systems Management, Research Center, 82
- Balmer, G. G.  
Federal Highway Administration, 64
- Barenkau, K. E.  
International Safety Academy, 90
- Barger, J. E.  
Bolt Beranek and Newman, Inc., 36
- Barker, R. E.  
Univ. of Virginia, Department of Material Sciences, 167
- Barlett, L.  
Pennsylvania State Univ., Lab. for Human Performance Res., 136
- Baron, S.  
Bolt Beranek and Newman, Inc., 36
- Barr, J. W.  
Aluminum Association, Inc., 8
- Barr, R. H.  
Climax Molybdenum Co., 40
- Barritt, J. S.  
Industrial Risk Insurers, 79
- Barsom, J. D.  
Barsom, J. M., Consultant, 25
- Barton, F. W.  
Univ. of Virginia, Department of Civil Engineering, 164
- Baster, D. P.  
Naval Research Laboratory, 118
- Bastress, E. K.  
Arthur D. Little, Safety and Fire Technology Unit, 17
- Baum, H.  
National Bureau of Standards, Center for Fire Research 104
- Baum, W. A.  
International Planetary Patrol, 89
- Beck, W. L.  
Oak Ridge Associated Univ., REAC/TS, 128
- Becker, H.  
Becker, Herbert, Consultant, 28
- Beckett, T. A.  
Aeronutronic Ford Corp. Safety Engineering Section, 2
- Bender, M.  
Vitro Labs., 172
- Bender, R.  
Univ. of California, Fire Research Group, 159
- Benjamin, I.  
National Bureau of Standards, Center for Fire Research 104
- Berdjis, C. C.  
Armed Forces Institute of Pathology, 14
- Berger, J. D.  
Oak Ridge Associated Univ., REAC/TS, 128
- Bernardin, H. J.  
Old Dominion Univ., Performance Assessment Laboratory, 134
- Bertocci, U.  
National Bureau of Standards, Mechanical Properties Section, 107
- Behr, J. E.  
International Conference of Building Officials, 88
- Birky, M.  
National Bureau of Standards, Center for Fire Research 104
- Bland, R.  
Pennsylvania State Univ., Applied Research Laboratory 135
- Bolger, P. H.  
American Astronautical Society, 9
- Bornemann, D.  
R. Dixon Speas, Associates, 142

- Bowen, J. R.  
Univ. of Wisconsin, Engineering Experiment Station  
169
- Bowers, H. N.  
Naval Weapons Support Center, 119
- Bresler, B.  
Univ. of California, Fire Research Group, 159
- Bresser, D. H.  
Aluminum Association, Inc., 8
- Bridges, J.  
IIT Research Inst., 76
- Brinson, H. F.  
Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech.  
171
- Brown, H.  
Manufacturing Chemists Assn., Inc., Information Services, 100
- Brown, J. L.  
Georgia Inst. of Technology, Engineering Experiment Station, 71
- Brown, N. A.  
Bolt Beranek and Newman, Inc., 36
- Brown, O. R.  
Dalton Research Center, 55
- Bruce, R. D.  
Bolt Beranek and Newman, Inc., 36
- Brueschke, E.  
IIT Research Inst., 76
- Buchanan, R.  
National Forest Products Association, 110
- Buchbinder, B.  
National Bureau of Standards, Center for Fire Research  
104
- Burke, R.  
Univ. of Virginia, Department of Civil Engineering, 164
- Burns, W. J.  
Office of Hazardous Materials, 130
- Buskirk, E. R.  
Pennsylvania State Univ., Lab. for Human Performance Res., 136
- Cameron, W. C.  
World Data Center A: Rockets and Satellites, 174
- Campbell, J. B.  
Boeing Aerospace Co., Sneak Circuit Analysis Group  
33
- Campbell, M. V.  
Manufacturing Chemists Assn., Inc., Information Services, 100
- Canaday, R. M.  
Institute of Safety and Systems Management, Safety Center, 84
- Canale, S.  
Canale Research, 37
- Capen, C. F.  
International Planetary Patrol, 89
- Carper, W. E.  
Naval Weapons Support Center, 119
- Carter, T. H.  
International Conference of Building Officials, 88
- Caugherty, C.  
Atlas Testing Laboratories, Inc., 19
- Chan, K.  
World Data Center A: Rockets and Satellites, 174
- Chaney, J. F.  
Electronic Properties Information Center, 60
- Charest, M.  
Com. for the Advancement of Public Interest Organizations, 43
- Chem, T.  
Lightning and Transients Research Inst., 97
- Chen, T. E. P.  
Institute of Fracture and Solid Mechanics, 80
- Cheng, S.  
Univ. of Wisconsin, Engineering Experiment Station  
169
- Chi, T. C.  
Electronic Properties Information Center, 60
- Christ, B. W.  
National Bureau of Standards, Mechanical Properties Section, 107
- Church, J. M.  
Church, J. M., Consultant, 39
- Clark, C. C.  
Com. for the Advancement of Public Interest Organizations, 43
- Clarke, F.  
National Bureau of Standards, Center for Fire Research  
104
- Clifford, D. W.  
McDonnel Aircraft Co., Lightning Simulation Laboratory, 102
- Clingman, P.  
York Research Corporation, 175
- Clough, E.  
Knowledge Availability Systems Information Center, 93
- Cloutier, R. J.  
Oak Ridge Associated Univ., REAC/TS, 128
- Coates, G. D.  
Old Dominion Univ., Performance Assessment Laboratory, 134
- Collins, A. G.  
Bartlesville Energy Research Center, 26
- Collins, E.  
National Oceanographic Data Center, 114
- Conkling, J. A.  
Washington College, 173
- Cook, G.  
Univ. of Virginia, Department of Electrical Engineering  
165
- Cook, L.  
Phase Diagrams for Ceramists, 137

- Cooperman, A.  
     National Oceanographic Data Center, 114  
 Coor, M. L.  
     Airport Operators Council International, 5  
 Corbett, J. J.  
     Airport Operators Council International, 5  
 Cornish, R.  
     IIT Research Inst., 76  
 Coull, J.  
     Knowledge Availability Systems Information Center, 93  
 Courtney, I.  
     New York Univ., Center for Safety, 120  
 Cranston, G. F.  
     Cranston Research Inc., 51  
 Crossman, E. R.  
     Univ. of California, Fire Research Group, 159  
 Crouch, K. E.  
     General Electric Co., High Voltage Laboratory, 69  
 Crowl, R.  
     Cosmodyne, 49  
 Cruice, W. J.  
     Hazards Research Corporation, 75  
 Currie, Capt. A. B.  
     National Cargo Bureau, Inc., 108  
 Curt, R.  
     York Research Corporation, 175  
 Custen, L.  
     Vitro Labs., 172  
 Custer, R.  
     National Bureau of Standards, Center for Fire Research  
         104  
 Dalton, W. F.  
     New York Univ., Center for Safety, 120  
 Davis, L. R.  
     World Data Center A: Rockets and Satellites, 174  
 Davis, S.  
     National Bureau of Standards, Center for Fire Research  
         104  
 Dawson, G.  
     Oil and Hazardous Material Technical Assistance Data  
         System, 133  
 Dean, A. N.  
     Naval Weapons Support Center, 119  
 Dean, H. G.  
     Georgia Inst. of Technology, Engineering Experiment  
         Station, 71  
 DeGiovanni, J.  
     Allegany Ballistics Laboratory, 6  
 Demetsky, M. J.  
     Univ. of Virginia, Department of Civil Engineering, 164  
 Desmond, W. F.  
     National Highway Traffic Safety Admin., Tech. Ref. Br.  
         112  
 Devaney, M. J.  
     Dalton Research Center, 55  
 deWit, R.  
     National Bureau of Standards, Mechanical Properties  
         Section, 107  
 Dickason, J.  
     Atlas Testing Laboratories, Inc., 19  
 Dickey, T. R.  
     Coast Guard, Cargo and Hazardous Materials Division  
         41  
 Dicks, J. B.  
     University of Tennessee, Space Institute, 162  
 Dietsch, F. F.  
     Reynolds Metals Co., Technical Information Services  
         144  
 Dobson, Capt. R. C.  
     National Cargo Bureau, Inc., 108  
 Doherty, E. J.  
     American Bureau of Shipping, 10  
 Donnerberg, R. I.  
     Ohio State Univ., Physiological Fluid Mechanics Res.  
         Grp., 132  
 Dousin, D. R.  
     Bartlesville Energy Research Center, 26  
 Drake, E. M.  
     Arthur D. Little, Safety and Fire Technology Unit, 17  
 Dubach, L. L.  
     World Data Center A: Rockets and Satellites, 174  
 Duggan, L.  
     Airport Operators Council International, 5  
 Dziedzic, J.  
     Crane Packing Company, 50  
 Eagle, K.  
     Boeing Vertol Co., Product Assurance and System Safety  
         34  
 Early, J. G.  
     National Bureau of Standards, Mechanical Properties  
         Section, 107  
 Early, R. D.  
     Consumer Product Safety Commission, 47  
 Echols, C. E.  
     Univ. of Virginia, Department of Civil Engineering, 164  
 Ecker, H. A.  
     Georgia Inst. of Technology, Engineering Experiment  
         Station, 71  
 Edeskuty, F. J.  
     Los Alamos Scientific Lab., Cryogenic Engineering Sec-  
         tion, 99  
 Edner, P. G.  
     Cryptanalytic Computer Sciences, Inc., 54  
 Einhorn, I. N.  
     University of Utah, Flammability Research Center, 163  
 Eissenhuth, R.  
     Pennsylvania State Univ., Applied Research Laboratory  
         135  
 Elizondo, R. S.  
     Indiana University, Physiology Department, 78

- Elkow, J. D.  
     New York Univ., Center for Safety, 120  
 Ellington, H. V.  
     Ohio State Univ., Aviation Medicine Research Laboratory, 131  
 Emery, A. F.  
     Univ. of Washington, Department of Mechanical Engineering, 167  
 Eppink, R. T.  
     Univ. of Virginia, Department of Civil Engineering, 164  
 Epstein, S. D.  
     Cryptanalytic Computer Sciences, Inc., 54  
 Epstein, S. G.  
     Aluminum Association, Inc., 8  
 Erdogan, F.  
     Institute of Fracture and Solid Mechanics, 80  
 Faeth, G.  
     Pennsylvania State Univ., Applied Research Laboratory  
         135  
 Faley, J.  
     Airport Operators Council International, 5  
 Fang, H. Y.  
     Institute of Fracture and Solid Mechanics, 80  
 Farnsworth, Capt. W. L.  
     National Cargo Bureau, Inc., 108  
 Fay, J. A.  
     Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101  
 Feir, J.  
     R. Dixon Spears, Associates, 142  
 Finn, F.  
     Austin Research Engineers, Inc., 21  
 Fischer, J. G.  
     Cryptanalytic Computer Sciences, Inc., 54  
 Fischer, S. S.  
     Univ. of Virginia, Dept. of Engineering Sci. and Syst.  
         166  
 Fisher, F. A.  
     General Electric Co., High Voltage Laboratory, 69  
 Flagan, R. C.  
     Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101  
 Flamboe, E. E.  
     Inst. of Safety and Systems Mgmt., Traffic Safety Center  
         85  
 Flato, J. C.  
     New York Univ., Center for Safety, 120  
 Freimanis, I.  
     Crane Packing Company, 50  
 Frost, W.  
     University of Tennessee, Space Institute, 162  
 Gage, K.  
     Com. for the Advancement of Public Interest Organizations, 43  
 Galipault, J. B. Res., 136  
     Aviation Safety Institute, 22  
 Gammie, R. B.  
     Oak Ridge National Laboratory, Health Physics Division  
         129  
 Garbell, M. A.  
     Garbell Research Foundation, 68  
 Gardner, C. G.  
     Nondestructive Testing Data Support Center, 122  
 Gerris, G. A.  
     Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101  
 Gaylord, C. N.  
     Univ. of Virginia, Department of Civil Engineering, 164  
 Gebhardt, J.  
     Valley Forge Sp. Cent., Plastics and Adv. Composites Lab., 170  
 Geiger, G. E.  
     Knowledge Availability Systems Information Center, 93  
 Gillen, H. B.  
     Old Dominion Univ., Performance Assessment Laboratory, 134  
 Gimler, J. R.  
     Allegany Ballistics Laboratory, 6  
 Glascock, M. E.  
     International Safety Academy, 90  
 Goldberg, S.  
     Vitro Labs., 172  
 Goodman, R. M.  
     Georgia Inst. of Technology, Engineering Experiment Station, 71  
 Gordon, J. R.  
     New York Univ., Center for Safety, 120  
 Gordon, R. B.  
     Aeronutronic Ford Corp. Safety Engineering Section, 2  
 Grant, C. E.  
     Univ. of California, Fire Research Group, 159  
 Gratton, M. A.  
     Knowledge Availability Systems Information Center, 93  
 Gregory, D. P.  
     Institute of Gas Technology, 81  
 Grelecki, C.  
     Hazards Research Corporation, 75  
 Grimaldi, J. V.  
     New York Univ., Center for Safety, 120  
 Gross, D.  
     National Bureau of Standards, Center for Fire Research  
         104  
 Grosse, V. L.  
     George Washington Univ., School of Engin. and Appl. Sci., 70  
 Haefers, E. R., LTC  
     U. S. Army Agency for Aviation Safety, 154  
 Hall, D.  
     Auburn Univ., Materials Engineering Dept., 20

- Halverson, Marlene  
Com. for the Advancement of Public Interest Organizations, 43
- Hamlin, R. L.  
Ohio State Univ., Physiological Fluid Mechanics Res. Grp., 132
- Harrison, G. R.  
Georgia Inst. of Technology, Engineering Experiment Station, 71
- Harton, E. E.  
Systems Safety Society, 152
- Hasselman, D. P. H.  
Institute of Fracture and Solid Mechanics, 80
- Havens, J. A.  
Univ. of Arkansas, Chemical Engineering Department 157
- Haviland, J. K.  
Univ. of Virginia, Dept. of Engineering Sci. and Syst. 166
- Hawes, J. M.  
Army Materiel Command Safety Office, 16
- Haynes, H.  
Federal Aviation Administration, Off. of Aviation Medicine, 63
- Heart, R. E.  
Bolt Beranek and Newman, Inc., 36
- Hegmon, R. R.  
Federal Highway Administration, 64
- Hei, D. S.  
World Data Center A: Rockets and Satellites, 174
- Heller, R. A.  
Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech. 171
- Henneke, E. G.  
Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech. 171
- Herscovich, C. T.  
Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech. 171
- Herrick, R. R.  
Franklin-Hahnemann Inst., 67
- Herrold, G. R.  
Boeing Aerospace Co., Experience Analysis Center, 30
- Heuer, D. A.  
Boeing Aerospace Co., Sneak Circuit Analysis Group 33
- Hewett, R.  
National Forest Products Association, 110
- Heywood, F. F.  
Oak Ridge National Laboratory, Health Physics Division 129
- Heywood, J. B.  
Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
- Hicks, S.  
Cryptanalytic Computer Sciences, Inc., 54
- Hilberg, R. H.  
World Data Center A: Rockets and Satellites, 174
- Hill, E. J.  
Boeing Aerospace Co., Sneak Circuit Analysis Group 33
- Hiltz, A. A.  
Valley Forge Sp. Cen. : Mat'ls and Adv. Composites Lab., 170
- Hirtle, P. W.  
Bolt Beranek and Newman, Inc., 36
- Hitchings, W.  
National Forest Products Association, 110
- Ho, C. Y.  
Electronic Properties Information Center, 60  
Underground Excavation and Rock Properties Inform. Center, 156
- Hodgson, J.  
Pennsylvania State Univ., Lab. for Human Performance Res., 136
- Hoel, L. A.  
Univ. of Virginia, Department of Civil Engineering, 164
- Holcombe, R.  
National Forest Products Association, 110
- Holmgren, M. E.  
International Safety Academy, 90
- Horowitz, R.  
World Data Center A: Rockets and Satellites, 174
- Houser, F. N.  
Railroad Research Information Service, 143
- Howarth, J. T.  
Arthur D. Little, Safety and Fire Technology Unit, 17
- Hubner, K.  
Oak Ridge Associated Univ., REAC/TS, 128
- Hudson, W. R.  
Austin Research Engineers, Inc., 21
- Huebschman  
University of Tennessee, Space Institute, 162
- Huggett, C.  
National Bureau of Standards, Center for Fire Research 104
- Hunt, R. G.  
Allegany Ballistics Laboratory, 6
- Hurn, R. W.  
Bartlesville Energy Research Center, 26
- Hurt, H. H., Jr.  
Institute of Safety and Systems Management, Research Center, 82
- Interrante, C. G.  
National Bureau of Standards, Mechanical Properties Section, 107
- Iverson, W. I.  
National Bureau of Standards, Mechanical Properties Section, 107
- Jackson, F. J.  
Bolt Beranek and Newman, Inc., 36
- Jacobs, H. R.  
University of Utah, Flammability Research Center, 163

- Jacobs, T. L.  
Naval Weapons Support Center, 119
- Jacobson, A. P.  
Univ. of Michigan, Radiological Health Program, 160
- Jacobson, B.  
Northwestern Univ., Transportation Center Library, 126
- Jacobson, I. D.  
Univ. of Virginia, Dept. of Engineering Sci. and Syst.  
166
- James, H. M.  
Electronic Properties Information Center, 60
- Jason, N.  
National Bureau of Standards, Center for Fire Research  
104
- Jason, N. H.  
National Bureau of Standards, Fire Res. Inform. Services  
106
- Jemian, W.  
Auburn Univ., Materials Engineering Dept., 20
- Jennings, R. L.  
Univ. of Virginia, Department of Civil Engineering, 164
- Jesser, W. A.  
Univ. of Virginia, Department of Material Sciences, 167
- Johansen, R. T.  
Bartlesville Energy Research Center, 26
- Johnson, L.  
Crane Packing Company, 50
- Jolino, E. S.  
Aviation Simulations International, 23
- Jones, L.  
IIT Research Inst., 76
- Jones, M. H.  
Institute of Safety and Systems Management, Research  
Center, 82
- Jones, M. L.  
Allegany Ballistics Laboratory, 6
- Judd, W. R.  
Underground Excavation and Rock Properties Inform.  
Center, 156
- Junkins, J. L.  
Univ. of Virginia, Dept. of Engineering Sci. and Syst.  
166
- Kalagian, S. P., COL  
U. S. Army Agency for Aviation Safety, 154
- Kalelkar, A. S.  
Arthur D. Little, Safety and Fire Technology Unit, 17
- Kamon, E.  
Pennsylvania State Univ., Lab. for Human Performance  
Res., 136
- Kaplin, E.  
York Research Corporation, 175
- Karagheyoff, T.  
New York Univ., Center for Safety, 120
- Karyannikos, P. E.  
Ohio State Univ., Physiological Fluid Mechanics Res.  
Grp., 132
- Katz, M. J.  
Allegany Ballistics Laboratory, 6
- Keitz, J.  
R. Dixon Speas, Associates, 142
- Keller, W. E.  
Los Alamos Scientific Lab., Cryogenic Engineering Sec-  
tion, 99
- Kelly, J.  
International Association of Chiefs of Police, 86
- Kelsall, T.  
World Data Center A: Rockets and Satellites, 174
- Kessel, P. G.  
Univ. of Wisconsin, Engineering Experiment Station  
169
- Key, C.  
Pennsylvania State Univ., Applied Research Laboratory  
135
- Khandar, M. K.  
Cosmodyne, 49
- Kiely, D.  
Pennsylvania State Univ., Applied Research Laboratory  
135
- King  
National Forest Products Association, 110
- King, J. H.  
World Data Center A: Rockets and Satellites, 174
- King, R. R.  
Nondestructive Testing Data Support Center, 122
- Kinnier, H. L.  
Univ. of Virginia, Department of Civil Engineering, 164
- Kirby, D.  
Naval Air Engineering Center, 117
- Kirby, R. H.  
Old Dominion Univ., Performance Assessment Laborato-  
ry, 134
- Klein, M.  
IIT Research Inst., 76
- Kleypas, D.  
Com. for the Advancement of Public Interest Orga-  
nizations, 43
- Knuth, D. F.  
Nuclear Regulatory Com., Off. of Inspection and  
Enforcement, 127
- Kobayashi, A. S.  
Univ. of Washington, Department of Mechanical Engi-  
neering, 167
- Kollias, J.  
Pennsylvania State Univ., Lab. for Human Performance  
Res., 136
- Koutoujian, H. K.  
Electronic Properties Information Center, 60
- Kroger, D. J.  
Comprehensive University of Dayton On-Line Services

- Kruger, J.  
 National Bureau of Standards, Mechanical Properties  
 Section, 107
- Kuhlman-Wilsdorf, G.  
 Univ. of Virginia, Department of Material Sciences, 167
- Kuhn, R.  
 National Oceanographic Data Center, 114
- Kulander, J. L.  
 Lockheed Radiation Physics Group, 98
- Kumer, J. B.  
 Lockheed Radiation Physics Group, 98
- Landrock, A. J.  
 Plastics Technical Evaluation Center, 140
- Lane, R. F.  
 Lightning and Precipitation Static Test Laboratory, 96
- Lang, L. S.  
 Knowledge Availability Systems Information Center, 93
- Larew, H. G.  
 Univ. of Virginia, Department of Civil Engineering, 164
- Lata, E.  
 Naval Air Engineering Center, 117
- Latham, N. D.  
 Cryptanalytic Computer Sciences, Inc., 54
- Leach, T. M.  
 Naval Weapons Support Center, 119
- Leak, J. S.  
 Leak, John S., Consultants, 95
- Lease, J. C.  
 World Data Center A: Rockets and Satellites, 174
- Lestz, S. J.  
 U.S. Army Fuels and Lubricants Research Laboratory  
 155
- Levett, W. L.  
 Aviation Systems Command Reference Library, 24
- Levin, B.  
 National Bureau of Standards, Center for Fire Research  
 104
- Levine, R.  
 National Bureau of Standards, Center for Fire Research  
 104
- Lewis, M.  
 National Oceanographic Data Center, 114
- Li, H. H.  
 Electronic Properties Information Center, 60  
 Underground Excavation and Rock Properties Inform.  
 Center, 156
- Lincoln, J. V.  
 National Geophysical and Solar-Terrestrial Data Center  
 111
- Lipson, M.  
 New York Univ., Center for Safety, 120
- Liston, B. W.  
 Aviation Systems Command Reference Library, 24
- Liu, D.  
 Stanford Research Inst., Toxicology Department, 149
- Lloyd, J. D.  
 Army Materiel Command Safety Office, 16
- Loeffler, E. J.  
 Joint Industrial Council, 92
- Longinow, A.  
 IIT Research Inst., 76
- Loomis, J.  
 Pennsylvania State Univ., Lab. for Human Performance  
 Res., 136
- Lovell, E. G.  
 Univ. of Wisconsin, Engineering Experiment Station  
 169
- Luckritz, R. T.  
 Coast Guard, Cargo and Hazardous Materials Division  
 41
- Lupish, R. P.  
 Knowledge Availability Systems Information Center, 93
- Lushbaugh, C. C.  
 Oak Ridge Associated Univ., REAC/TS, 128
- Lyons, J.  
 Univ. of Virginia, Dept. of Engineering Sci. and Syst.  
 104
- Maciejczyk, J.  
 Plastics Technical Evaluation Center, 140
- Magee, P. C.  
 Univ. of Pittsburgh, Dept. of Ind. Environ. Health Sci.  
 161
- Manson, J. A.  
 Institute of Fracture and Solid Mechanics, 80
- March, J. F.  
 Comprehensive University of Dayton On-Line Services  
 44
- Marcus, M.  
 Com. for the Advancement of Public Interest Orga-  
 nizations, 43
- Marlisitschky, G. W.  
 Naval Weapons Support Center, 119
- Martin, J.  
 Environmental Protection Agency, Off. of Radiation Pro-  
 grams, 62
- Martin, L. J.  
 International Planetary Patrol, 89
- Masan, A. A.  
 University of Tennessee, Space Institute, 162
- Mattauch, R. J.  
 Univ. of Virginia, Department of Electrical Engineering  
 165
- Matthews, L. G.  
 Compressed Gas Association, Inc., 46
- Matula, R. A.  
 Electronic Properties Information Center, 60
- Maus, J. R.  
 University of Tennessee, Space Institute, 162
- Maxwell, K. J.  
 General Electric Co., High Voltage Laboratory, 69
- Maykuth, D. J.  
 Cobalt Information Center, 42

- Maynor, H. W., Jr.  
     Auburn Univ., Materials Engineering Dept., 20
- McAlpine, G. A.  
     Univ. of Virginia, Department of Electrical Engineering  
         165
- McArdle, G.  
     Climax Molybdenum Co., 40
- McBride, D.  
     Allegany Ballistics Laboratory, 6
- McCormick, F. C.  
     Univ. of Virginia, Department of Civil Engineering, 164
- McCullough, B. F.  
     Austin Research Engineers, Inc., 21
- McLain, J.  
     Washington College, 173
- McMurdo, R. B.  
     Boeing Aerospace Co., Safety Engineering, 32
- McVey, E. S.  
     Univ. of Virginia, Department of Electrical Engineering  
         165
- Melmed, A. J.  
     National Bureau of Standards, Mechanical Properties  
         Section, 107
- Melmed, K., Dr.  
     York Research Corporation, 175
- Mendez, J.  
     Pennsylvania State Univ., Lab. for Human Performance  
         Res., 136
- Mensch, H. L.  
     Institute of Gas Technology, 81
- Merriman, J. H.  
     Lightning and Transients Research Inst., 97
- Meskel, T. J.  
     American Inst. of Aeronautics and Astronautics, Inc.  
         12
- Meyers, H.  
     National Geophysical and Solar-Terrestrial Data Center  
         111
- Mickelson, R. W.  
     University of Utah, Flammability Research Center, 163
- Mikulka, P. J.  
     Old Dominion Univ., Performance Assessment Laborato-  
         ry, 134
- Miles, Capt. F. B.  
     National Cargo Bureau, Inc., 108
- Millgram, J.  
     Arthur D. Little, Safety and Fire Technology Unit, 17
- Miller, C. O.  
     Professional Air Traffic Controllers Organization, 141
- Miller, J.  
     R. Dixon Speas, Associates, 142
- Miller, J. P.  
     Knowledge Availability Systems Information Center, 93
- Monro, R.  
     York Research Corporation, 175
- Montgomery, L. C.  
     Jet Propulsion Lab., 91
- Morgan, B. B.  
     Old Dominion Univ., Performance Assessment Laborato-  
         ry, 134
- Morris, D.  
     Univ. of Virginia, Department of Civil Engineering, 164
- Morrissette, M. D.  
     Coast Guard, Cargo and Hazardous Materials Division  
         41
- Morrow, H., III  
     Climax Molybdenum Co., 40
- Morton, J. B.  
     Univ. of Virginia, Department of Engineering Science  
         and Sy, 166
- Mothersbaugh, L. L.  
     Army Materiel Command Safety Office, 16
- Mull, L. H.  
     Allegany Ballistics Laboratory, 6
- Musacchia, X. J.  
     Dalton Research Center, 55
- Musikant, S.  
     Valley Forge Sp. Cent., Plastics and Adv. Composites  
         Lab., 170
- Napadensky, A.  
     IIT Research Inst., 76
- Negard, G. R.  
     Aerospace Structures Information and Analysis Center  
         4
- Nelson, H.  
     National Bureau of Standards, Center for Fire Research  
         104
- Nelson, R. D., LTC  
     U. S. Army Agency for Aviation Safety, 154
- Nerem, R. M.  
     Ohio State Univ., Physiological Fluid Mechanics Res.  
         Grp., 132
- Newell, G.  
     Stanford Research Inst., Toxicology Department, 149
- Newman, M. S.  
     University of Utah, Flammability Research Center, 163
- Newmark, H.  
     Office of Hazardous Materials, 130
- Nicholas, W. C.  
     Pennsylvania State Univ., Lab. for Human Performance  
         Res., 136
- Niessner, C. W.  
     Federal Highway Administration, 64
- Nixon, J.  
     Government Research Laboratory, 74
- O'Donnell,  
     Naval Air Engineering Center, 117
- O'Tyson, C.  
     Boeing Aerospace Co., Safety Engineering, 32
- Oliphant, H. G.  
     Airport Operators Council International, 5

- Packull, B.  
Federal Aviation Administration, Off. of Aviation Medicine, 63
- Pagni, P. J.  
Univ. of California, Fire Research Group, 159
- Pangborn, J. B.  
Institute of Gas Technology, 81
- Parker, C. E.  
Univ. of Virginia, Department of Civil Engineering, 164
- Parker, W.  
National Bureau of Standards, Center for Fire Research  
104
- Parrella, H. C.  
Airport Operators Council International, 5
- Parrish, E. A.  
Univ. of Virginia, Department of Electrical Engineering  
165
- Partridge, L. J.  
Arthur D. Little, Safety and Fire Technology Unit, 17
- Paul, J. E.  
Cryptanalytic Computer Sciences, Inc., 54
- Paulson, N. W., COL  
U. S. Army Agency for Aviation Safety, 154
- Pebly, H. B.  
Plastics Technical Evaluation Center, 140
- Petino, G.  
Hazards Research Corporation, 75
- Pettinger, L.  
Earth Resources Observation Systems Data Center, 57
- Peyrot, A. H.  
Univ. of Wisconsin, Engineering Experiment Station  
169
- Pfersich, E. P.  
Coast Guard, Cargo and Hazardous Materials Division  
41
- Phillipson, L. L.  
Institute of Safety and Systems Management, Research  
Center, 82
- Phillips, A. W.  
Smoke, Fire and Burn Foundation, Inc., 146
- Phillips, J.  
Electronic Properties Information Center, 60  
Underground Excavation and Rock Properties Inform.  
Center, 156
- Picklesimer, M. L.  
Picklesimer, M.L., Consultant, 139
- Pilkey, W. D.  
Univ. of Virginia, Dept. of Engineering Sci. and Syst.  
166
- Pilkington, II, G. B.  
Federal Highway Administration, 64
- Plato, P. A.  
Univ. of Michigan, Radiological Health Program, 160
- Plumer, A. J.  
General Electric Co., High Voltage Laboratory, 69
- Polivka, M.  
Univ. of California, Department of Civil Engineering  
158
- Poppe, E.  
Atlas Testing Laboratories, Inc., 19
- Porter, C. R.  
Eastern Environmental Radiation Facility, 59
- Poulds, N.  
Georgia Inst. of Technology, Engineering Experiment  
Station, 71
- Prange, G.  
National Forest Products Association, 110
- Pratt, T. H.  
Allegany Ballistics Laboratory, 6
- Pritsky, W. W.  
Aluminum Association, Inc., 8
- Pruyn, R.  
Boeing Vertol Co., Product Assurance and System Safety  
34
- Pugh, M. J.  
Knowledge Availability Systems Information Center, 93
- Purcell, F.  
National Forest Products Association, 110
- Quay, D.  
International Association of Fire Chiefs, Inc., 87
- Queen, W. G.  
Army Materiel Command Safety Office, 16
- Quinn, E.  
Boeing Vertol Co., Product Assurance and System Safety  
34
- Rainer, W. J.  
American LaFrance Inc., 13
- Rankin, J. P.  
Boeing Aerospace Co., Sneak Circuit Analysis Group  
33
- Rashid, K. R.  
Consumer Product Safety Commission, 47
- Rath, G. J.  
Northwestern Univ., Tech. Inst., Design and Devel. Cen.  
ter, 125
- Rauhut, J. B.  
Austin Research Engineers, Inc., 21
- Rawl, R. R.  
Coast Guard, Cargo and Hazardous Materials Division  
41
- Raymond, L.  
Aerospace Corp., Energy & Transportation Division, 3
- Ready, A.  
Plastics Technical Evaluation Center, 140
- Recht, J. L.  
National Safety Council, 116
- Reddy, K. C.  
University of Tennessee, Space Institute, 162
- Reifsnider, K. L.  
Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech.  
171

- Reighard, H. L.  
Federal Aviation Administration, Off. of Aviation Medicine, 63
- Reilly, J. D.  
Airport Operators Council International, 5
- Rice, J. M.  
Federal Highway Administration, 64
- Richards, E.  
Government-Industry Data Exchange Program, 72
- Richardson, R. H.  
Allegany Ballistics Laboratory, 6
- Ricks, R. C.  
Oak Ridge Associated Univ., REAC/TS, 128
- Riikinen, D. A.  
Coast Guard, Cargo and Hazardous Materials Division  
41
- Ritola, A. P.  
American Bureau of Shipping, 10
- Robart, C.  
R. Dixon Speas, Associates, 142
- Robb, J. D.  
Lightning and Transients Research Inst., 97
- Roberts, H. W.  
Superconductive Materials Data Center, 151
- Robertson, A.  
National Bureau of Standards, Center for Fire Research  
104
- Robertson, D. W.  
Georgia Inst. of Technology, Engineering Experiment Station, 71
- Rockett, J.  
National Bureau of Standards, Center for Fire Research  
104
- Rolnick, B.  
New York Univ., Center for Safety, 120
- Roosnagi, C.  
Coast Guard, Cargo and Hazardous Materials Division  
41
- Rowe, H.  
Cosmodyne, 49
- Rowen, J.  
National Bureau of Standards, Center for Fire Research  
104
- Roylance, H. M.  
Roylance, Herbert M., Consultant, 145
- Ryan, N. W.  
University of Utah, Flammability Research Center, 163
- Saben, M.  
Vitro Labs., 172
- Salmon, C. G.  
Univ. of Wisconsin, Engineering Experiment Station  
169
- Sand, E.  
Boeing Vertol Co., Product Assurance and System Safety  
34
- Sandor, B. I.  
Univ. of Wisconsin, Engineering Experiment Station  
169
- Sandwith, C. J.  
Univ. of Washington, Department of Mechanical Engineering, 167
- Sasmore, D.  
Stanford Research Inst., Toxicology Department, 149
- Sawyer, D.  
World Data Center A: Rockets and Satellites, 174
- Sawyer, R. F.  
Univ. of California, Fire Research Group, 159
- Sawyer, S. O.  
Allegany Ballistics Laboratory, 6
- Scallion, P.  
Center for Short-Lived Phenomena, 38
- Schaefer, A. O.  
Metals Properties Council, Inc., 103
- Scheel, L. D.  
Natl. Inst. of Occupational Safety and Health, Toxicol.  
Br., 113
- Scheffler, F. L.  
Comprehensive University of Dayton On-Line Services  
44
- Schelhorn, C. L., LTC  
Army Materiel Command Safety Office, 16
- Schlack, A. L.  
Univ. of Wisconsin, Engineering Experiment Station  
169
- Schneider, A.  
Coast Guard, Cargo and Hazardous Materials Division  
41
- Schofield, N.  
World Data Center A: Rockets and Satellites, 174
- Schoolman, S. A.  
Lockheed Radiation Physics Group, 98
- Schulte, E. H.  
McDonnel Aircraft Co., Lightning Simulation Laboratory,  
102
- Schultz, T. J.  
Bolt Beranek and Newman, Inc., 36
- Seader, J. D.  
University of Utah, Flammability Research Center, 163
- Seaton, D.  
Vitro Labs., 172
- Senderoff, I.  
Boeing Vertol Co., Product Assurance and System Safety  
34
- Shafer, W. H.  
Electronic Properties Information Center, 60  
Underground Excavation and Rock Properties Inform.  
Center, 156
- Shapley, A. H.  
National Geophysical and Solar-Terrestrial Data Center  
111

- Sibbison, J.  
Environmental Protection Agency, Off. of Radiation Programs, 62
- Sidman, K. R.  
Arthur D. Little, Safety and Fire Technology Unit, 17
- Simmons, J. A.  
National Bureau of Standards, Mechanical Properties Section, 107
- Singer, B.  
R. Dixon Spears, Associates, 142
- Singpurwalla, N. D.  
George Washington Univ., School of Engin. and Appl. Sci., 70
- Sinnett, A. B.  
American Foundrymen's Society, 11
- Sliney, D. H.  
Army Environmental Hygiene Agency, Laser-Microwave Div., 15
- Slobodzinski, A.  
Plastics Technical Evaluation Center, 140
- Slote, L.  
New York Univ., Center for Safety, 120
- Small, A. M., Ph.D.  
Institute of Safety and Systems Management, Research Center, 82
- Smith, J. H.  
National Bureau of Standards, Mechanical Properties Section, 107
- Smith, M.  
Soc. for the Advancement of Material and Process Engin., 147
- Smith, P.  
Austin Research Engineers, Inc., 21  
Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
- Smith, R. W.  
Federal Highway Administration, 64
- Smulevitz, A. R.  
New York Univ., Center for Safety, 120
- Snyder, W. A.  
Battelle Memorial Inst., Library and Information Services, 27
- Sokolsky, S.  
Aerospace Corp., Energy & Transportation Division, 3
- South, F. E.  
Dalton Research Center, 55
- Spencer, H. N.  
Franklin-Hahnemann Inst., 67
- Squires, D.  
Center for Short-Lived Phenomena, 38
- Stanford Research Inst., Toxicology Department  
Lightning and Transients Research Inst., 97
- Stapp, J. P., M.D.  
Institute of Safety and Systems Management, Research Center, 82
- Starr, E. A.  
Bolt Beranek and Newman, Inc., 36
- Stassingopoulos, E. G.  
World Data Center A: Rockets and Satellites, 174
- Stavinoha, L. L.  
U.S. Army Fuels and Lubricants Research Laboratory  
155
- Stevenson, G. D.  
International Safety Academy, 90
- Stinchcomb, W. W.  
Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech.  
171
- Stockinger, S.  
Cosmodyne, 49
- Stoy, S. T.  
Cryogenic Consultants, Inc., 53
- Strange, L. C., COL  
U. S. Army Agency for Aviation Safety, 154
- Sutton, J. M.  
Allegany Ballistics Laboratory, 6
- Sweningsen, W. B.  
Aeronutronic Ford Corp. Safety Engineering Section, 2
- Swenson, E. D.  
American Bureau of Shipping, 10
- Sze, T. W.  
Knowledge Availability Systems Information Center, 93
- Taggart, R.  
Univ. of Washington, Department of Mechanical Engineering, 168
- Tanzilli, R.  
Valley Forge Sp. Cent., Plastics and Adv. Composites Lab., 170
- Taras, D. N.  
Army Materiel Command Safety Office, 16
- Taylor, A. R.  
Forest Fire Information Project, 66
- Teague, M. J.  
World Data Center A: Rockets and Satellites, 174
- Templelmeyer, K. E.  
University of Tennessee, Space Institute, 162
- Thompson, C. J.  
Bartlesville Energy Research Center, 26
- Thorngate, J.  
Oak Ridge National Laboratory, Health Physics Division  
129
- Tichauer, E. R.  
New York Univ., Center for Safety, 120
- Tien, C. L.  
Univ. of California, Fire Research Group, 159
- Tiner, N.  
Atlas Testing Laboratories, Inc., 19
- Tinklenberg, J. R.  
Stanford Univ., Clinical Psychopharm. and Psychophys.  
Lab., 150
- Titus, J. B.  
Plastics Technical Evaluation Center, 140

- Toong, T. Y.  
Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
- Touloukian, Y. S.  
Electronic Properties Information Center, 60  
Underground Excavation and Rock Properties Inform. Center, 156
- Treadwell, L. S.  
Allegany Ballistics Laboratory, 6
- Trettin, H. D.  
Boeing Aerospace Co., Product and System Safety Org. 31
- Treybig, H. J.  
Austin Research Engineers, Inc., 21
- Trout, H. E.  
Knowledge Availability Systems Information Center, 93
- Tsou, D. M.  
Crane Packing Company, 50
- Tunkel, S. J.  
Hazards Research Corporation, 75
- Turkes, W. R.  
Knowledge Availability Systems Information Center, 93
- Ungar, E. E.  
Bolt Beranek and Newman, Inc., 36
- Vander Arend, P. C.  
Cryogenic Consultants, Inc., 53
- Varieur, N. L.  
Picatinny Arsenal, Scientific and Technical Inform. Div. 138
- Verhulst, H. L.  
Food and Drug Administration, Poison Control Program 65
- Vette, J. I.  
World Data Center A: Rockets and Satellites, 174
- Volkert, W. A.  
Dalton Research Center, 55
- Von Frese, R. R. H.  
Underground Excavation and Rock Properties Inform. Center, 156
- Vrooman, G. K.  
Benet Laboratories, Technical Information Services Office, 29
- Waite, J. H.  
Cryptanalytic Computer Sciences, Inc., 54
- Wakeley, H.  
IIT Research Inst., 76
- Walker, W. T.  
Lightning and Precipitation Static Test Laboratory, 96
- Walko, L. C.  
General Electric Co., High Voltage Laboratory, 69
- Wands, R. C.  
Advisory Center on Toxicology, 1
- Wang, C. K.  
Univ. of Wisconsin, Engineering Experiment Station 169
- Warskow, M.  
R. Dixon Speas, Associates, 142
- Waterman, T.  
IIT Research Inst., 76
- Waterman, W. W.  
Institute of Gas Technology, 81
- Watson, D. R.  
International Conference of Building Officials, 88
- Watts, S.  
Manufacturing Chemists Assn., Inc., Information Services, 100
- Wawner, R. E., Jr.  
Univ. of Virginia, Department of Material Sciences, 167
- Weatherford, W. D.  
U.S. Army Fuels and Lubricants Research Laboratory 155
- Wei, R. P.  
Institute of Fracture and Solid Mechanics, 80
- Wells, H. E.  
Army Materiel Command Safety Office, 16
- Wemple, E.  
R. Dixon Speas, Associates, 142
- Wende, C. D.  
World Data Center A: Rockets and Satellites, 174
- Wendt, F. W.  
Franklin-Hahnemann Inst., 67
- Wenzel, E. S.  
American Bureau of Shipping, 10
- West, J. E.  
Cryogenic Consultants, Inc., 53
- Whipple, G. H.  
Univ. of Michigan, Radiological Health Program, 160
- Whisman, M. L.  
Bartlesville Energy Research Center, 26
- Whitehead, E. J.  
Ohio State Univ., Aviation Medicine Research Laboratory, 131
- Wick, R. L.  
Ohio State Univ., Aviation Medicine Research Laboratory, 131
- Wilcox, R. C.  
Auburn Univ., Materials Engineering Dept., 20
- Wildey, R. L.  
Northern Arizona Univ., Dept. of Physics, 124
- Williams, G. M.  
Allegany Ballistics Laboratory, 6
- Williamson, R. B.  
Univ. of California, Fire Research Group, 159
- Wilsdorf, H. G. F.  
Univ. of Virginia, Department of Material Sciences, 167
- Wilson, Capt. G. A.  
National Cargo Bureau, Inc., 108
- Wilson, J. L.  
Boeing Aerospace Co., Sneak Circuit Analysis Group 33

- Wilson, R. P.  
Arthur D. Little, Safety and Fire Technology Unit, 17
- Wimer, W. W.  
U.S. Army Fuels and Lubricants Research Laboratory  
155
- Winger, J.  
National Bureau of Standards, Center for Fire Research  
104
- Wisniewski, F.  
Crane Packing Company, 50
- Wolbarsht, M. L.  
Duke Univ. Eye Center, 56
- Wright  
University of Tennessee, Space Institute, 162
- Wright, B. R.  
U.S. Army Fuels and Lubricants Research Laboratory  
155
- Wright, J. H.  
Technical Assistance Data System, 153
- Wright, R.  
Stanford Research Inst., Tech. Inform. Serv., 148
- Wziatek, T.  
Atlas Testing Laboratories, Inc., 19
- Yohe, R. E.  
American Bureau of Shipping, 10
- Young, L.  
Atlas Testing Laboratories, Inc., 19
- Zapata, R. N.  
Univ. of Virginia, Dept. of Engineering Sci. and Syst.  
166
- Zereher, J.  
Manufacturing Chemists Assn., Inc., Information Ser-  
vices, 100
- Zugzda, M.  
National Center for Health Statistics, 109

## Experts Listed By Specialty

### Abrasives

Barr, R. H.  
Climax Molybdenum Co., 40

### Accident Investigation

Flamboe, E. E.  
Inst. of Safety and Systems Mgmt., Traffic Safety  
Center, 85  
Kalsgian, S. P., COL  
U. S. Army Agency for Aviation Safety, 154  
Miller, C. O.  
Professional Air Traffic Controllers Organization  
141  
Newman, M. S.  
University of Utah, Flammability Research Center  
163

### Accidents

Ricks, R. C.  
Oak Ridge Associated Univ., REAC/TS, 128

### Acoustics

Garris, G. A.  
Mass. Inst. of Technology, Dept. of Mechanical En-  
gineering, 101

### Adhesives

Landrock, A. J.  
Plastics Technical Evaluation Center, 140.

### Aeronautics

Bolger, P. H.  
American Astronautical Society, 9  
Fischer, S. S.  
Univ. of Virginia, Dept. of Engineering Sci. and  
Syst., 166  
Haviland, J. K.  
Univ. of Virginia, Dept. of Engineering Sci. and  
Syst., 166  
Levett, W. L.  
Aviation Systems Command Reference Library, 24  
Liston, B. W.  
Aviation Systems Command Reference Library, 24

### Aeronomy

Horowitz, R.  
World Data Center A: Rockets and Satellites, 174

### Aerospace Engineering

Garbell, M. A.  
Garbell Research Foundation, 68  
Haviland, J. K.  
Univ. of Virginia, Dept. of Engineering Sci. and  
Syst., 166  
Junkins, J. L.  
Univ. of Virginia, Dept. of Engineering Sci. and  
Syst., 166  
Maus, J. R.  
University of Tennessee, Space Institute, 162  
Meskel, T. J.  
American Inst. of Aeronautics and Astronautics,  
Inc., 12  
Nerem, R. M.  
Ohio State Univ., Physiological Fluid Mechanics  
Res. Grp., 132  
Rankin, J. P.  
Boeing Aerospace Co., Sneak Circuit Analysis

### Aerospace Engineering (cont'd)

Group, 33  
Robb, J. D.  
Lightning and Transients Research Inst., 97  
Shapley, A. H.  
National Geophysical and Solar-Terrestrial Data  
Center, 111  
Wilson, J. L.  
Boeing Aerospace Co., Sneak Circuit Analysis  
Group, 33

### Aerospace Medicine

Brueschke, E.  
IIT Research Inst., 76  
Ellingson, H. V.  
Ohio State Univ., Aviation Medicine Research  
Laboratory, 131  
Reighard, H. L.  
Federal Aviation Administration, Off. of Aviation  
Medicine, 63  
Whitehead, E. J.  
Ohio State Univ., Aviation Medicine Research  
Laboratory, 131  
Wick, R. L.  
Ohio State Univ., Aviation Medicine Research  
Laboratory, 131

### Air

Kaplin, E.  
York Research Corporation, 175

### Air Pollution

Heywood, J. B.  
Mass. Inst. of Technology, Dept. of Mechanical En-  
gineering, 101

### Air Traffic Control

Warskow, M.  
R. Dixon Speas, Associates, 142

### Aircraft Fuels

Weathersford, W. D.  
U.S. Army Fuels and Lubricants Research Labora-  
tory, 155  
Wright, B. R.  
U.S. Army Fuels and Lubricants Research Labora-  
tory, 155

### Aircraft Maintenance

Miller, J.  
R. Dixon Speas, Associates, 142

### Aircraft Problems

Campbell, J. B.  
Boeing Aerospace Co., Sneak Circuit Analysis  
Group, 33  
Hill, E. J.  
Boeing Aerospace Co., Sneak Circuit Analysis  
Group, 33  
Negard, G. R.  
Aerospace Structures Information and Analysis  
Center, 4

### Aircraft Safety

Feir, J.  
R. Dixon Speas, Associates, 142  
Galipault, J. B.  
Aviation Safety Institute, 22

- Aircraft Safety (cont'd)**
- Kalagian, S. P., COL
    - U. S. Army Agency for Aviation Safety, 154
  - Leak, J. S.
    - Leak, John S., Consultants, 95
  - Miller, C. O.
    - Professional Air Traffic Controllers Organization  
141
  - Paulson, N. W., COL
    - U. S. Army Agency for Aviation Safety, 154
  - Schelhorn, C. L., LTC
    - Army Materiel Command Safety Office, 16
- Airport Planning**
- Duggan, L.
    - Airport Operators Council International, 5
  - Singer, B.
    - R. Dixon Speas, Associates, 142
- Airports**
- Duggan, L.
    - Airport Operators Council International, 5
  - Faley, J.
    - Airport Operators Council International, 5
  - Kelly, J.
    - International Association of Chiefs of Police, 86
  - Oliphant, H. G.
    - Airport Operators Council International, 5
  - Parrella, B. C.
    - Airport Operators Council International, 5
  - Reilly, J. D.
    - Airport Operators Council International, 5
- Architecture**
- Bender, R.
    - Univ. of California, Fire Research Group, 159
  - Hirtle, P. W.
    - Bolt Beranek and Newman, Inc., 36
  - Schultz, T. J.
    - Bolt Beranek and Newman, Inc., 36
- Asphalt**
- Finn, F.
    - Austin Research Engineers, Inc., 21
- Astronomy**
- Baum, W. A.
    - International Planetary Patrol, 89
  - Capen, C. F.
    - International Planetary Patrol, 89
  - Kelsall, T.
    - World Data Center A: Rockets and Satellites, 174
  - Lincoln, J. V.
    - National Geophysical and Solar-Terrestrial Data Center, 111
  - Martin, T.
    - International Planetary Patrol, 89
  - Wenz, C. C.
    - World Data Center A: Rockets and Satellites, 174
  - Wilsey, R. L.
    - Northern Arizona Univ., Dept. of Physics, 124
- Atmospheres**
- Kumer, J. B.
    - Lockheed Radiation Physics Group, 98
- Barges**
- Roosmagi, C.
    - Coast Guard, Cargo and Hazardous Materials Division, 41
- Burns (Injuries)**
- Phillips, A. W.
    - Smoke, Fire and Burn Foundation, Inc., 146
- Cargo**
- Allen, M. H.
    - Coast Guard, Cargo and Hazardous Materials Division, 41
  - Altemos, E. A.
    - Coast Guard, Cargo and Hazardous Materials Division, 41
  - Corbett, J. J.
    - Airport Operators Council International, 5
  - Currie, Capt. A. B.
    - National Cargo Bureau, Inc., 108
  - Dobson, Capt. R. C.
    - National Cargo Bureau, Inc., 108
  - Faley, J.
    - Airport Operators Council International, 5
  - Farnsworth, Capt. W. L.
    - National Cargo Bureau, Inc., 108
  - Luckritz, R. T.
    - Coast Guard, Cargo and Hazardous Materials Division, 41
  - Miles, Capt. F. B.
    - National Cargo Bureau, Inc., 108
  - Wilson, Capt. G. A.
    - National Cargo Bureau, Inc., 108
- Catalysts**
- Melmed, K., Dr.
    - York Research Corporation, 175
- Ceramics**
- Gebhardt, J.
    - Valley Forge Sp. Cent., Plastics and Adv. Composites Lab., 170
  - Musikant, S.
    - Valley Forge Sp. Cent., Plastics and Adv. Composites Lab., 170
  - Tanzilli, R.
    - Valley Forge Sp. Cent., Plastics and Adv. Composites Lab., 170
- Chemical Engineering**
- Albaugh, L. R.
    - Alleghany Ballistics Laboratory, 6
  - Burns, W. J.
    - Office of Hazardous Materials, 130
  - Coull, J.
    - Knowledge Availability Systems Information Center  
93
  - Havens, J. A.
    - Univ. of Arkansas, Chemical Engineering Department, 157
  - Lang, L. S.
    - Knowledge Availability Systems Information Center  
93
  - Seader, J. D.
    - University of Utah, Flammability Research Center  
163
  - Tunkel, S. J.
    - Hazards Research Corporation, 75
- Chemical Hazards**
- Hawes, J. M.
    - Army Materiel Command Safety Office, 16
  - Morrisette, M. D.
    - Coast Guard, Cargo and Hazardous Materials Division, 41

- Chemical Hazards (cont'd)**
- Roosmagi, C.
    - Coast Guard, Cargo and Hazardous Materials Division, 41
- Chemistry**
- Barr, R. H.
    - Climax Molybdenum Co., 40
  - Cook, L.
    - Phase Diagrams for Ceramists, 137
  - Freimanis, I.
    - Crane Packing Company, 50
  - Gebhardt, J.
    - Valley Forge Sp. Cent., Plastics and Adv. Composites Lab., 170
  - Hiltz, A. A.
    - Valley Forge Sp. Cent., Plastics and Adv. Composites Lab., 170
  - Huggett, C.
    - National Bureau of Standards, Center for Fire Research, 104
  - Johnson, L.
    - Crane Packing Company, 50
  - Jones, M. L.
    - Allegany Ballistics Laboratory, 6
  - Kroger, D. J.
    - Comprehensive University of Dayton On-Line Services, 44
  - Kuhn, R.
    - National Oceanographic Data Center, 114
  - Manson, J. A.
    - Institute of Fracture and Solid Mechanics, 80
  - Newell, G.
    - Stanford Research Inst., Toxicology Department 149
  - Pugh, M. J.
    - Knowledge Availability Systems Information Center 93
  - Readdy, A.
    - Plastics Technical Evaluation Center, 140
  - Tsou, D. M.
    - Crane Packing Company, 50
  - Wisniewski, F.
    - Crane Packing Company, 50
  - Wright, R.
    - Stanford Research Inst., Tech. Inform. Serv., 148
  - Young, L.
    - Atlas Testing Laboratories, Inc., 19
- Civil Engineering**
- Bresler, B.
    - Univ. of California, Fire Research Group, 159
  - Fang, H. Y.
    - Institute of Fracture and Solid Mechanics, 80
  - Miller, J. P.
    - Knowledge Availability Systems Information Center 93
- Cobalt**
- Maykuth, D. J.
    - Cobalt Information Center, 42
- Combustion**
- Bastress, E. K.
    - Arthur D. Little, Safety and Fire Technology Unit 17
  - Birky, M.
    - National Bureau of Standards, Center for Fire Research, 104
- Combustion (cont'd)**
- Bowen, J. R.
    - Univ. of Wisconsin, Engineering Experiment Station 169
  - Eissenhuth, R.
    - Pennsylvania State Univ., Applied Research Laboratory, 135
  - Faeth, G.
    - Pennsylvania State Univ., Applied Research Laboratory, 135
  - Levine, R.
    - National Bureau of Standards, Center for Fire Research, 104
  - Monro, R.
    - York Research Corporation, 175
  - Sidman, K. R.
    - Arthur D. Little, Safety and Fire Technology Unit 17
  - Wilson, R. P.
    - Arthur D. Little, Safety and Fire Technology Unit 17
- Composite Materials**
- Brinson, H. F.
    - Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech., 171
  - Heunke, E. G.
    - Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech., 171
  - Heracovich, C. T.
    - Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech., 171
  - Reisbinder, K. L.
    - Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech., 171
  - Slobodzinski, A.
    - Plastics Technical Evaluation Center, 140
  - Smith, M.
    - Soc. for the Advancement of Material and Process Engin., 147
  - Wawner, R. E., Jr.
    - Univ. of Virginia, Department of Material Sciences 167
- Compressed gas**
- Matthews, L. G.
    - Compressed Gas Association, Inc., 46
- Computer Programming**
- Bornemann, D.
    - R. Dixon Speas, Associates, 142
  - Paul, J. E.
    - Cryptanalytic Computer Sciences, Inc., 54
  - Phillips, J.
    - Electronic Properties Information Center, 60
    - Underground Excavation and Rock Properties Inform. Center, 136
  - Seaton, D.
    - Vitro Labs., 172
- Computer Systems Design**
- Epstein, S. D.
    - Cryptanalytic Computer Sciences, Inc., 54
  - Latham, N. D.
    - Cryptanalytic Computer Sciences, Inc., 54
- Computer Techniques**
- Heart, R. E.
    - Bolt Beranek and Newman, Inc., 36

- Construction**
- Buchan, R.  
National Forest Products Association, 110
  - Echols, C. E.  
Univ. of Virginia, Department of Civil Engineering  
164
  - Gross, D.  
National Bureau of Standards, Center for Fire Research, 104
  - Smith, P.  
Austin Research Engineers, Inc., 21
- Consumer Protection**
- Kleypas, D.  
Com. for the Advancement of Public Interest Organizations, 43
  - Rashid, K. R.  
Consumer Product Safety Commission, 47
- Control Systems**
- Jacobson, I. D.  
Univ. of Virginia, Dept. of Engineering Sci. and Syst., 166
- Corrosion**
- Tiner, N.  
Atlas Testing Laboratories, Inc., 19
- Cryogenic Fluid Safety**
- Crowl, R.  
Cosmodyne, 49
  - Drake, E. M.  
Arthur D. Little, Safety and Fire Technology Unit  
17
  - Fay, J. A.  
Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
  - Rowe, H.  
Cosmodyne, 49
  - Smith, P.  
Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
  - Stoy, S. T.  
Cryogenic Consultants, Inc., 53
  - West, J. E.  
Cryogenic Consultants, Inc., 53
- Crystals**
- Kuhlman-Wilsdorf, G.  
Univ. of Virginia, Department of Material Sciences  
167
- Detectors**
- Custer, R.  
National Bureau of Standards, Center for Fire Research, 104
- Dosimeters**
- Gammage, R. B.  
Oak Ridge National Laboratory, Health Physics Division, 129
- Earth Sciences**
- Collins, A. G.  
Bartlesville Energy Research Center, 26
  - Johansen, R. T.  
Bartlesville Energy Research Center, 26
  - Larew, H. G.  
Univ. of Virginia, Department of Civil Engineering  
164
  - Meyers, H.
- Earth Sciences (cont'd)**
- National Geophysical and Solar-Terrestrial Data Center, 111
  - Smith, P.  
Austin Research Engineers, Inc., 21
  - Squires, D.  
Center for Short-Lived Phenomena, 38
- Economic Factors**
- Curt, R.  
York Research Corporation, 175
  - Parrella, B. C.  
Airport Operators Council International, 5
- Education**
- Barenblau, K. E.  
International Safety Academy, 90
  - Beck, W. L.  
Oak Ridge Associated Univ., REAC/TS, 128
  - Bowers, H. N.  
Naval Weapons Support Center, 119
  - Canaday, R. M.  
Institute of Safety and Systems Management, Safety Center, 84
  - Cloutier, R. J.  
Oak Ridge Associated Univ., REAC/TS, 128
  - Cruise, W. J.  
Hazards Research Corporation, 75
  - Elkow, J. D.  
New York Univ., Center for Safety, 120
  - Marisichky, G. W.  
Naval Weapons Support Center, 119
  - Stevenson, G. D.  
International Safety Academy, 90
  - Strange, L. C., COL  
U. S. Army Agency for Aviation Safety, 154
  - Waterman, W. W.  
Institute of Gas Technology, 81
- Electrical/Electronic Engineering**
- Cook, G.  
Univ. of Virginia, Department of Electrical Engineering, 165
  - Heuer, D. A.  
Boeing Aerospace Co., Sneak Circuit Analysis Group, 33
  - Huebschman  
University of Tennessee, Space Institute, 162
  - Mattauch, R. J.  
Univ. of Virginia, Department of Electrical Engineering, 165
  - McVey, E. S.  
Univ. of Virginia, Department of Electrical Engineering, 165
  - Mull, L. H.  
Allegany Ballistics Laboratory, 6
  - Parrish, E. A.  
Univ. of Virginia, Department of Electrical Engineering, 165
  - Sze, T. W.  
Knowledge Availability Systems Information Center  
93
- Electromagnetism**
- Fisher, F. A.  
General Electric Co., High Voltage Laboratory, 69
  - Lane, R. F.  
Lightning and Precipitation Static Test Laboratory  
96

- Electronics**
- Chem, T.  
Lightning and Transients Research Inst., 97
  - Devaney, M. J.  
Dalton Research Center, 55
  - Lupish, R. P.  
Knowledge Availability Systems Information Center  
93
  - Readdy, A.  
Plastics Technical Evaluation Center, 140
- Energy**
- Dicks, J. B.  
University of Tennessee, Space Institute, 162
- Engineering**
- Levine, R.  
National Bureau of Standards, Center for Fire Re-  
search, 104
  - Templetmeyer, K. E.  
University of Tennessee, Space Institute, 162
  - Yohe, R. E.  
American Bureau of Shipping, 10
- Engineering Management**
- Crossman, E. R.  
Univ. of California, Fire Research Group, 159
  - O'Donnell,  
Naval Air Engineering Center, 117
  - Rath, G. J.  
Northwestern Univ., Tech. Inst., Design and Devel.  
Center, 125
  - Turkes, W. R.  
Knowledge Availability Systems Information Center  
93
- Engines**
- Hurn, R. W.  
Bartlesville Energy Research Center, 26
  - Lestz, S. J.  
U.S. Army Fuels and Lubricants Research Labora-  
tory, 155
  - Weatherford, W. D.  
U.S. Army Fuels and Lubricants Research Labora-  
tory, 155
  - Wright, B. R.  
U.S. Army Fuels and Lubricants Research Labora-  
tory, 155
- Environmental Conditions**
- Coor, M. L.  
Airport Operators Council International, 5
- Environments**
- Bruce, R. D.  
Bolt Beranek and Newman, Inc., 36
  - Burke, R.  
Univ. of Virginia, Department of Civil Engineering  
164
  - Clingman, P.  
York Research Corporation, 175
  - Magee, P. C.  
Univ. of Pittsburgh, Dept. of Ind. Environ. Health  
Sci., 161
  - Robert, C.  
R. Dixon Speas, Associates, 142
- Explosions**
- Bowen, J. R.  
Univ. of Wisconsin, Engineering Experiment Station  
169
- Explosions (cont'd)**
- Church, J. M.  
Church, J. M., Consultant, 39
  - Glelecki, C.  
Hazards Research Corporation, 75
  - Hall, D.  
Auburn Univ., Materials Engineering Dept., 20
- Explosives**
- Carper, W. E.  
Naval Weapons Support Center, 119
  - DeGiovanni, J.  
Allegany Ballistics Laboratory, 6
  - Gimler, J. R.  
Allegany Ballistics Laboratory, 6
  - Hawes, J. M.  
Army Materiel Command Safety Office, 16
  - Key, C.  
Pennsylvania State Univ., Applied Research  
Laboratory, 135
  - McLain, J.  
Washington College, 173
  - Petino, G.  
Hazards Research Corporation, 75
  - Pratt, T. H.  
Allegany Ballistics Laboratory, 6
  - Queen, W. G.  
Army Materiel Command Safety Office, 16
  - Richardson, R. H.  
Allegany Ballistics Laboratory, 6
  - Riikinen, D. A.  
Coast Guard, Cargo and Hazardous Materials Divi-  
sion, 41
  - Roylance, H. M.  
Roylance, Herbert M., Consultant, 145
  - Sutton, J. M.  
Allegany Ballistics Laboratory, 6
  - Treadwell, L. S.  
Allegany Ballistics Laboratory, 6
  - Williams, G. M.  
Allegany Ballistics Laboratory, 6
- Eye (Anatomy)**
- Wolbarsht, M. L.  
Duke Univ. Eye Center, 56
- Failure**
- Sandwith, C. J.  
Univ. of Washington, Department of Mechanical  
Engineering, 168
  - Taggart, R.  
Univ. of Washington, Department of Mechanical  
Engineering, 168
- Failure Analysis**
- Ambrose, J. R.  
National Bureau of Standards, Mechanical  
Properties Section, 107
  - Bertocci, U.  
National Bureau of Standards, Mechanical  
Properties Section, 107
  - Interrante, C. G.  
National Bureau of Standards, Mechanical  
Properties Section, 107
  - Jemian, W.  
Auburn Univ., Materials Engineering Dept., 20
  - Kruger, J.  
National Bureau of Standards, Mechanical  
Properties Section, 107

- Failure Analysis (cont'd)**
- Maynor, H. W., Jr.  
Auburn Univ., Materials Engineering Dept., 20
  - Melmed, A. J.  
National Bureau of Standards, Mechanical Properties Section, 107
  - Picklesimer, M. L.  
Picklesimer, M.L., Consultant, 139
  - Wilcox, R. C.  
Auburn Univ., Materials Engineering Dept., 20
- Fatigue (Materials)**
- Heller, R. A.  
Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech., 171
  - Reifsnider, K. L.  
Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech., 171
  - Sandor, B. I.  
Univ. of Wisconsin, Engineering Experiment Station 169
- Fault Tree Analysis**
- Katz, M. J.  
Allegany Ballistics Laboratory, 6
- Fire Fighting Equipment**
- Rainer, W. J.  
American LaFrance Inc., 13
- Fire Hazards**
- Buchtinder, B.  
National Bureau of Standards, Center for Fire Research, 104
  - Grelecki, C.  
Hazards Research Corporation, 75
  - Howarth, J. T.  
Arthur D. Little, Safety and Fire Technology Unit 17
  - Milgrom, J.  
Arthur D. Little, Safety and Fire Technology Unit 17
  - Robertson, A.  
National Bureau of Standards, Center for Fire Research, 104
- Fire Insurance**
- Barritt, J. S.  
Industrial Risk Insurers, 79
  - Purcell, F.  
National Forest Products Association, 110
- Fire Prevention**
- Babruskas, V.  
Univ. of California, Fire Research Group, 159
  - Gross, D.  
National Bureau of Standards, Center for Fire Research, 104
  - Nixon, J.  
Government Research Laboratory, 74
  - Wimer, W. W.  
U.S. Army Fuels and Lubricants Research Laboratory, 155
  - Winger, J.  
National Bureau of Standards, Center for Fire Research, 104
- Fire Protection**
- Attalah, S.  
Arthur D. Little, Safety and Fire Technology Unit 17
- Fire Protection (cont'd)**
- Babruskas, V.  
Univ. of California, Fire Research Group, 159
  - Barritt, J. S.  
Industrial Risk Insurers, 79
  - Custer, R.  
National Bureau of Standards, Center for Fire Research, 104
  - Marisischky, G. W.  
Naval Weapons Support Center, 119
  - Nixon, J.  
Government Research Laboratory, 74
- Fire Resistant Materials**
- Davis, S.  
National Bureau of Standards, Center for Fire Research, 104
  - Lyons, J.  
National Bureau of Standards, Center for Fire Research, 104
- Fire Suppression**
- Appleton, J. P.  
Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
  - Flagan, R. C.  
Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
- Fires**
- Benjamin, L.  
National Bureau of Standards, Center for Fire Research, 104
  - Bland, R.  
Pennsylvania State Univ., Applied Research Laboratory, 135
  - Church, J. M.  
Church, J. M., Consultant, 39
  - Einhorn, I. N.  
University of Utah, Flammability Research Center 163
  - Hall, D.  
Auburn Univ., Materials Engineering Dept., 20
  - Huggett, C.  
National Bureau of Standards, Center for Fire Research, 104
  - Jason, N. H.  
National Bureau of Standards, Fire Res. Inform. Services, 106
  - Levin, B.  
National Bureau of Standards, Center for Fire Research, 104
  - Nelson, H.  
National Bureau of Standards, Center for Fire Research, 104
  - Newman, M. S.  
University of Utah, Flammability Research Center 163
  - Parker, W.  
National Bureau of Standards, Center for Fire Research, 104
  - Quay, D.  
International Association of Fire Chiefs, Inc., 87
  - Rockett, J.  
National Bureau of Standards, Center for Fire Research, 104
  - Toong, T. Y.  
Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101

- Fires (cont'd)**
- Waterman, T.  
IIT Research Inst., 76
  - Flame Propagation**
  - Appleton, J. P.  
Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
  - Flagan, R. C.  
Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
  - Ryan, N. W.  
University of Utah, Flammability Research Center  
163
  - Flight Control**
  - Kelitz, J.  
R. Dixon Speas, Associates, 142
  - Flight Simulation**
  - Joline, E. S.  
Aviation Simulations International, 23
  - Fluid Mechanics**
  - Baum, H.  
National Bureau of Standards, Center for Fire Research, 104
  - Morton, J. B.  
Univ. of Virginia, Dept. of Engineering Sci. and Syst., 166
  - Fluorine**
  - Newmark, H.  
Office of Hazardous Materials, 130
  - Forest Fires**
  - Taylor, A. R.  
Forest Fire Information Project, 66
  - Foundries**
  - Sinnett, A. B.  
American Foundrymen's Society, 11
  - Fracture Mechanics**
  - Brinson, H. F.  
Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech., 171
  - Chen, T. E. P.  
Institute of Fracture and Solid Mechanics, 80
  - Emery, A. F.  
Univ. of Washington, Department of Mechanical Engineering, 168
  - Erdogan, F.  
Institute of Fracture and Solid Mechanics, 80
  - Kobayashi, A. S.  
Univ. of Washington, Department of Mechanical Engineering, 168
  - Smith, J. H.  
National Bureau of Standards, Mechanical Properties Section, 107.
  - Stinchcomb, W. W.  
Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech., 171
  - Tiner, N.  
Atlas Testing Laboratories, Inc., 19
  - Wei, R. P.  
Institute of Fracture and Solid Mechanics, 80
  - Wziatek, T.  
Atlas Testing Laboratories, Inc., 19
  - Fuels**
  - Kiely, D.
- Fuels (cont'd)**
- Pennsylvania State Univ., Applied Research Laboratory, 135
  - Klein, M.  
IIT Research Inst., 76
  - Thompson, C. J.  
Bartlesville Energy Research Center, 26
  - Weatherford, W. D.  
U.S. Army Fuels and Lubricants Research Laboratory, 155
  - Wimer, W. W.  
U.S. Army Fuels and Lubricants Research Laboratory, 155
  - Wright, B. R.  
U.S. Army Fuels and Lubricants Research Laboratory, 155
  - Gas Detectors**
  - Armstrong, F. E.  
Bartlesville Energy Research Center, 26
  - Hazardous Materials**
  - Allan, D. S.  
Arthur D. Little, Safety and Fire Technology Unit  
17
  - Altemos, E. A.  
Coast Guard, Cargo and Hazardous Materials Division, 41
  - Dawson, G.  
Oil and Hazardous Material Technical Assistance Data System, 133
  - Gordon, R. B.  
Aeronutronic Ford Corp. Safety Engineering Section, 2
  - Luckritz, R. T.  
Coast Guard, Cargo and Hazardous Materials Division, 41
  - Heat Resistant Alloys**
  - Morrow, H., III  
Climax Molybdenum Co., 40
  - Heat Transfer**
  - Jacobs, H. R.  
University of Utah, Flammability Research Center  
163
  - Heating Rate**
  - Baer, A. D.  
University of Utah, Flammability Research Center  
163
  - High Temperature**
  - Poulds, N.  
Georgia Inst. of Technology, Engineering Experiment Station, 71
  - Highway Safety**
  - Balmer, G. G.  
Federal Highway Administration, 64
  - Desmond, W. F.  
National Highway Traffic Safety Admin., Tech. Ref. Br., 112
  - Hurt, H. H., Jr.  
Institute of Safety and Systems Management, Research Center, 82
  - Niesauer, C. W.  
Federal Highway Administration, 64
  - Pilkington, H. G. B.  
Federal Highway Administration, 64
  - Rice, J. M.

- Highway Safety (cont'd)**
- Federal Highway Administration, 64
  - Smith, R. W.  
Federal Highway Administration, 64
- Human Factors Engineering**
- Quinn, E.  
Boeing Vertol Co., Product Assurance and System Safety, 34
  - Kamon, E.  
Pennsylvania State Univ., Lab. for Human Performance Res., 136
  - Leach, T. M.  
Naval Weapons Support Center, 119
  - Magee, P. C.  
Univ. of Pittsburgh, Dept. of Ind. Environ. Health Sci., 161
  - Morgan, B. B.  
Old Dominion Univ., Performance Assessment Laboratory, 134
  - Rath, G. J.  
Northwestern University Technological Inst., Design and Dev., 125
  - Slote, L.  
New York Univ., Center for Safety, 120
  - Small, A. M., Ph.D.  
Institute of Safety and Systems Management, Research Center, 82
  - Stapp, J. P., M.D.  
Institute of Safety and Systems Management, Research Center, 82
  - Tichauer, E. R.  
New York Univ., Center for Safety, 120
  - Wakeley, H.  
IIT Research Inst., 76
- Human Performance**
- Adkins, C. J.  
Old Dominion Univ., Performance Assessment Laboratory, 134
  - Alluisi, E. A.  
Old Dominion Univ., Performance Assessment Laboratory, 134
  - Bernardin, H. J.  
Old Dominion Univ., Performance Assessment Laboratory, 134
  - Coates, G. D.  
Old Dominion Univ., Performance Assessment Laboratory, 134
  - Kirby, R. H.  
Old Dominion Univ., Performance Assessment Laboratory, 134
  - Mikulka, P. J.  
Old Dominion Univ., Performance Assessment Laboratory, 134
  - Morgan, B. B.  
Old Dominion Univ., Performance Assessment Laboratory, 134
  - Stapp, J. P., M.D.  
Institute of Safety and Systems Management, Research Center, 82
- Hydrocarbon Fuels**
- Stavinoha, L. L.  
U.S. Army Fuels and Lubricants Research Laboratory, 155
- Hydrogen**
- Gregory, D. P.
- Hydrogen (cont'd)**
- Institute of Gas Technology, 81
  - Pangborn, J. B.  
Institute of Gas Technology, 81
- Industrial Hygiene**
- Beckett, T. A.  
Aeronutronic Ford Corp. Safety Engineering Section, 2
  - Courtenay, I.  
New York Univ., Center for Safety, 120
  - Dalton, W. F.  
New York Univ., Center for Safety, 120
  - Dean, A. N.  
Naval Weapons Support Center, 119
  - Flato, J. C.  
New York Univ., Center for Safety, 120
  - Grimaldi, J. V.  
New York Univ., Center for Safety, 120
  - Partridge, L. J.  
Arthur D. Little, Safety and Fire Technology Unit 17
  - Wands, R. C.  
Advisory Center on Toxicology, 1
- Industrial Safety**
- Dalton, W. F.  
New York Univ., Center for Safety, 120
  - Dean, A. N.  
Naval Weapons Support Center, 119
  - Faley, J.  
Airport Operators Council International, 5
  - Flato, J. C.  
New York Univ., Center for Safety, 120
  - Taras, D. N.  
Army Materiel Command Safety Office, 16
- Information Retrieval**
- Anzalone, A. M.  
Plastics Technical Evaluation Center, 140
  - Ashworth, M.  
Crane Packing Company, 50
  - Baron, S.  
Bolt Beranek and Newman, Inc., 36
  - Bressen, D. H.  
Aluminum Association, Inc., 8
  - Campbell, M. V.  
Manufacturing Chemists Assn., Inc., Information Services, 100
  - Chaney, J. F.  
Electronic Properties Information Center, 60
  - Charest, M.  
Com. for the Advancement of Public Interest Organizations, 43
  - Clark, C. C.  
Com. for the Advancement of Public Interest Organizations, 43
  - Dean, H. G.  
Georgia Inst. of Technology, Engineering Experiment Station, 71
  - Dietsch, F. F.  
Reynolds Metals Co., Technical Information Services, 144
  - Early, R. D.  
Consumer Product Safety Commission, 47
  - Feir, J.  
R. Dixon Speas, Associates, 142
  - Gage, K.  
Com. for the Advancement of Public Interest Orga-

- Information Retrieval (cont'd)**
- nizations, 43
  - Gardner, C. G.
    - Nondestructive Testing Data Support Center, 122
  - Glascok, M. E.
    - International Safety Academy, 90
  - Grant, C. E.
    - Univ. of California, Fire Research Group, 159
  - Hafers, E. R., LTC
    - U. S. Army Agency for Aviation Safety, 154
  - Herrold, G. R.
    - Boeing Aerospace Co., Experience Analysis Center  
            30
  - Hewett, R.
    - National Forest Products Association, 110
  - Hicks, S.
    - Cryptanalytic Computer Sciences, Inc., 54
  - Jacobson, B.
    - Northwestern Univ., Transportation Center Library  
            126
  - Jason, N.
    - National Bureau of Standards, Center for Fire Re-  
            search, 104
  - Jason, N. H.
    - National Bureau of Standards, Fire Res. Inform.  
            Services, 106
  - Jones, M. H.
    - Institute of Safety and Systems Management, Re-  
            search Center, 82
  - King
    - National Forest Products Association, 110
  - King, R. R.
    - Nondestructive Testing Data Support Center, 122
  - Koutoujian, H. K.
    - Electronic Properties Information Center, 60
  - Lloyd, J. D.
    - Army Materiel Command Safety Office, 16
  - March, J. F.
    - Comprehensive University of Dayton On-Line Ser-  
            vices, 44
  - Marcus, M.
    - Com. for the Advancement of Public Interest Orga-  
            nizations, 43
  - Mensch, H. L.
    - Institute of Gas Technology, 81
  - Meskel, T. J.
    - American Inst. of Aeronautics and Astronautics,  
            Inc., 12
  - Pettinger, L.
    - Earth Resources Observation Systems Data Center  
            57
  - Prange, G.
    - National Forest Products Association, 110
  - Quay, D.
    - International Association of Fire Chiefs, Inc., 87
  - Rainer, W. J.
    - American LaFrance Inc., 13
  - Scheffler, F. L.
    - Comprehensive University of Dayton On-Line Ser-  
            vices, 44
  - Schoolman, S. A.
    - Lockheed Radiation Physics Group, 98
  - Shafer, W. H.
    - Electronic Properties Information Center, 60
    - Underground Excavation and Rock Properties In-  
            form. Center, 156
  - Sibbison, J.
- Information Retrieval (cont'd)**
- Environmental Protection Agency, Off. of Radiation  
        Programs, 62
  - Snyder, W. A.
    - Battelle Memorial Inst., Library and Information  
            Services, 27
  - Taylor, A. R.
    - Forest Fire Information Project, 66
  - Varieur, N. L.
    - Picatinny Arsenal, Scientific and Technical Inform.  
            Div., 138
  - Vrooman, G. K.
    - Benet Laboratories, Technical Information Services  
            Office, 29
  - Watson, D. R.
    - International Conference of Building Officials, 88
  - Wemple, E.
    - R. Dixon Speas, Associates, 142
  - Wright, J. H.
    - Technical Assistance Data System, 153
  - Zercher, J.
    - Manufacturing Chemists Assn., Inc., Information  
            Services, 100
- Instruments**
- Brown, J. L.
    - Georgia Inst. of Technology, Engineering Experi-  
            ment Station, 71
  - Starr, E. A.
    - Bolt Beranek and Newman, Inc., 36
- Kinetics**
- Mickelson, R. W.
    - University of Utah, Flammability Research Center  
            163
- Lasers**
- Bridges, J.
    - IT Research Inst., 76
  - Sliney, D. H.
    - Army Environmental Hygiene Agency, Laser-Mi-  
            crowave Div., 15
  - Sweningen, W. B.
    - Aeronutronic Ford Corp. Safety Engineering Sec-  
            tion, 2
- Legal Liability**
- Coor, M. L.
    - Airport Operators Council International, 5
  - Echols, C. E.
    - Univ. of Virginia, Department of Civil Engineering  
            164
  - Kleyps, D.
    - Com. for the Advancement of Public Interest Orga-  
            nizations, 43
  - Rolnick, B.
    - New York Univ., Center for Safety, 120
  - Smulevitz, A. R.
    - New York Univ., Center for Safety, 120
- Life Sciences**
- Collins, E.
    - National Oceanographic Data Center, 114
  - Edner, P. G.
    - Cryptanalytic Computer Sciences, Inc., 54
  - Fischer, J. G.
    - Cryptanalytic Computer Sciences, Inc., 54
  - Harrison, G. R.
    - Georgia Inst. of Technology, Engineering Experi-  
            ment Station, 71

- Life Sciences (cont'd)**
- Jemian, W.  
Auburn Univ., Materials Engineering Dept., 20
  - Scallion, P.  
Center for Short-Lived Phenomena, 38
  - Wendt, F. W.  
Franklin-Hahnemann Inst., 67
- Lightning**
- Clifford, D. W.  
McDonnel Aircraft Co., Lightning Simulation Laboratory, 102
  - Newman, M.  
Lightning and Transients Research Inst., 97
  - Plumer, A. J.  
General Electric Co., High Voltage Laboratory, 69
  - Schulte, E. H.  
McDonnel Aircraft Co., Lightning Simulation Laboratory, 102
  - Walker, W. T.  
Lightning and Precipitation Static Test Laboratory 96
  - Walko, L. C.  
General Electric Co., High Voltage Laboratory, 69
- Liquid Helium**
- Stoy, S. T.  
Cryogenic Consultants, Inc., 53
  - Vander Arend, P. C.  
Cryogenic Consultants, Inc., 53
- Liquid Hydrogen**
- Edeskuty, F. J.  
Los Alamos Scientific Lab., Cryogenic Engineering Section, 99
  - Vander Arend, P. C.  
Cryogenic Consultants, Inc., 53
- Liquified Gases**
- Dickey, T. R.  
Coast Guard, Cargo and Hazardous Materials Division, 41
  - Fay, J. A.  
Mass. Inst. of Technology, Dept. of Mechanical Engineering, 101
  - Schneider, A.  
Coast Guard, Cargo and Hazardous Materials Division, 41
  - West, J. E.  
Cryogenic Consultants, Inc., 53
- Lubricants**
- Whisman, M. L.  
Bartlesville Energy Research Center, 26
- Magnetic Properties**
- Li, H. H.  
Underground Excavation and Rock Properties Inform. Center, 156
- Magnetosphere**
- Cameron, W. C.  
World Data Center A: Rockets and Satellites, 174
  - Chan, K.  
World Data Center A: Rockets and Satellites, 174
  - Davis, L. R.  
World Data Center A: Rockets and Satellites, 174
  - Hilberg, R. H.  
World Data Center A: Rockets and Satellites, 174
  - Schofield, N.  
World Data Center A: Rockets and Satellites, 174
- Magnetosphere (cont'd)**
- Teague, M. J.  
World Data Center A: Rockets and Satellites, 174
- Marketing**
- Alison, G. A.  
Aluminum Association, Inc., 8
  - Clough, E.  
Knowledge Availability Systems Information Center 93
- Materials**
- Freimanis, I.  
Crane Packing Company, 50
  - Hunt, R. G.  
Allegany Ballistics Laboratory, 6
  - Maciejczyk, J.  
Plastics Technical Evaluation Center, 140
  - Roberts, B. W.  
Superconductive Materials Data Center, 151
  - Sandwith, C. J.  
Univ. of Washington, Department of Mechanical Engineering, 168
  - Schaefer, A. O.  
Metals Properties Council, Inc., 103
  - Smith, M.  
Soc. for the Advancement of Material and Process Engin., 147
  - Taggart, R.  
Univ. of Washington, Department of Mechanical Engineering, 168
  - Titus, J. B.  
Plastics Technical Evaluation Center, 140
  - Williams, G. M.  
Allegany Ballistics Laboratory, 6
- Materials Handling**
- Gratton, M. A.  
Knowledge Availability Systems Information Center 93
- Mathematics**
- Reddy, K. C.  
University of Tennessee, Space Institute, 162
  - Seaton, D.  
Vitro Labs., 172
  - Waite, J. H.  
Cryptanalytic Computer Sciences, Inc., 54
- Mechanical Engineering**
- Chen, T. E. P.  
Institute of Fracture and Solid Mechanics, 80
  - Early, J. G.  
National Bureau of Standards, Mechanical Properties Section, 107
  - Erdogan, F.  
Institute of Fracture and Solid Mechanics, 80
  - Frost, W.  
University of Tennessee, Space Institute, 162
  - Geiger, G. E.  
Knowledge Availability Systems Information Center 93
  - Hegmon, R. R.  
Federal Highway Administration, 64
  - Pagni, P. J.

- Mechanical Engineering (cont'd)**
- Univ. of California, Fire Research Group, 159
  - Petino, G.
  - Hazards Research Corporation, 75
  - Pilkey, W. D.
  - Univ. of Virginia, Dept. of Engineering Sci. and Syst., 166
  - Sawyer, R. F.
  - Univ. of California, Fire Research Group, 159
  - Sawyer, S. O.
  - Allegany Ballistics Laboratory, 6
  - Smith, P.
  - Austin Research Engineers, Inc., 19
  - Tien, C. L.
  - Univ. of California, Fire Research Group, 159
  - Wei, R. P.
  - Institute of Fracture and Solid Mechanics, 80
- Mechanical Properties**
- deWit, R.
  - National Bureau of Standards, Mechanical Properties Section, 107
  - Henneke, E. G.
  - Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech., 171
  - Judd, W. R.
  - Underground Excavation and Rock Properties Inform. Center, 156
  - Simmons, J. A.
  - National Bureau of Standards, Mechanical Properties Section, 107
- Medicine**
- Berdjis, C. C.
  - Armed Forces Institute of Pathology, 14
  - Brown, O. R.
  - Dalton Research Center, 55
  - Devaney, M. J.
  - Dalton Research Center, 55
  - Donnerberg, R. L.
  - Ohio State Univ., Physiological Fluid Mechanics Res. Grp., 132
  - Fischer, J. G.
  - Cryptanalytic Computer Sciences, Inc., 54
  - Herrick, R. R.
  - Franklin-Hahnemann Inst., 67
  - Hubner, K.
  - Oak Ridge Associated Univ., REAC/TS, 128
  - Karayannacos, P. E.
  - Ohio State Univ., Physiological Fluid Mechanics Res. Grp., 132
  - Lushbaugh, C. C.
  - Oak Ridge Associated Univ., REAC/TS, 128
  - Reighard, H. L.
  - Federal Aviation Administration, Off. of Aviation Medicine, 63
  - Volkert, W. A.
  - Dalton Research Center, 55
  - Wolbarsht, M. L.
  - Duke Univ. Eye Center, 56
  - Zugzda, M.
  - National Center for Health Statistics, 109
- Metallurgy**
- Caugherty, C.
  - Atlas Testing Laboratories, Inc., 19
  - Early, J. G.
  - National Bureau of Standards, Mechanical Properties Section, 107
- Metallurgy (cont'd)**
- Epstein, S. G.
  - Aluminum Association, Inc., 8
  - Hasselman, D. F. H.
  - Institute of Fracture and Solid Mechanics, 80
  - Jesser, W. A.
  - Univ. of Virginia, Department of Material Sciences 167
  - Pritsky, W. W.
  - Aluminum Association, Inc., 8
  - Schaefer, A. O.
  - Metals Properties Council, Inc., 103
  - Shafer, W. H.
  - Underground Excavation and Rock Properties Inform. Center, 156
  - Swenson, E. D.
  - American Bureau of Shipping, 10
  - Wilsdorf, H. G. F.
  - Univ. of Virginia, Department of Material Sciences 167
  - Wright
  - University of Tennessee, Space Institute, 162
- Meteorology**
- Cooperman, A.
  - National Oceanographic Data Center, 114
  - Dubach, L. L.
  - World Data Center A: Rockets and Satellites, 174
  - Kaplin, E.
  - York Research Corporation, 175
  - Lease, J. C.
  - World Data Center A: Rockets and Satellites, 174
- Microwaves**
- Bridges, J.
  - IIT Research Inst., 76
  - McAlpine, G. A.
  - Univ. of Virginia, Department of Electrical Engineering, 165
- Missiles**
- Bender, M.
  - Vitro Labs., 172
  - Custen, L.
  - Vitro Labs., 172
  - Goldberg, S.
  - Vitro Labs., 172
  - Saben, M.
  - Vitro Labs., 172
- Noise (Sound)**
- Brown, N. A.
  - Bolt Beranek and Newman, Inc., 36
  - Bruce, R. D.
  - Bolt Beranek and Newman, Inc., 36
  - Schultz, T. J.
  - Bolt Beranek and Newman, Inc., 36
- Nondestructive Evaluation**
- Gardner, C. G.
  - Nondestructive Testing Data Support Center, 122
  - King, R. R.
  - Nondestructive Testing Data Support Center, 122
  - Reifsnider, K. L.
  - Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech., 171
- Nuclear Engineering**
- McBride, D.
  - Allegany Ballistics Laboratory, 6

- Nuclear Engineering (cont'd)**
- Rankin, J. P.  
Boeing Aerospace Co., Sneak Circuit Analysis Group, 33
  - Wilson, J. L.  
Boeing Aerospace Co., Sneak Circuit Analysis Group, 33
- Nuclear Explosions**
- Von Frese, R. R. B.  
Underground Excavation and Rock Properties Inform. Center, 156
- Nuclear Physics**
- Crouch, K. E.  
General Electric Co., High Voltage Laboratory, 69
  - Harrison, G. R.  
Georgia Inst. of Technology, Engineering Experiment Station, 71
  - Hei, D. S.  
World Data Center A: Rockets and Satellites, 174
  - King, J. H.  
World Data Center A: Rockets and Satellites, 174
  - Porter, C. R.  
Eastern Environmental Radiation Facility, 59
  - Sawyer, D.  
World Data Center A: Rockets and Satellites, 174
  - Stassingopoulos, E. G.  
World Data Center A: Rockets and Satellites, 174
- Nuclear Power Plants**
- Wells, H. E.  
Army Materiel Command Safety Office, 16
- Nuclear Radiation**
- Berdjis, C. C.  
Armed Forces Institute of Pathology, 14
- Oceanography**
- Lewis, M.  
National Oceanographic Data Center, 114
- Oils**
- Collins, A. G.  
Bartlesville Energy Research Center, 26
  - Johansen, R. T.  
Bartlesville Energy Research Center, 26
  - Lestz, S. J.  
U.S. Army Fuels and Lubricants Research Laboratory, 155
- Operations Research**
- O'Donnell,  
Naval Air Engineering Center, 117
- Orthopedics**
- Spencer, H. N.  
Franklin-Hahnemann Inst., 67
- Passengers**
- Corbett, J. J.  
Airport Operators Council International, 5
  - Faley, J.  
Airport Operators Council International, 5
- Pathology**
- Berdjis, C. C.  
Armed Forces Institute of Pathology, 14
  - Sasmore, D.  
Stanford Research Inst., Toxicology Department  
149
- Pavements**
- Finn, F.  
Austin Research Engineers, Inc., 21
  - Hudson, W. R.  
Austin Research Engineers, Inc., 21
  - McCullough, B. F.  
Austin Research Engineers, Inc., 21
- Physical Properties**
- Chi, T. C.  
Electronic Properties Information Center, 60
  - Ho, C. Y.  
Electronic Properties Information Center, 60  
Underground Excavation and Rock Properties Inform. Center, 156
  - Li, H. H.  
Electronic Properties Information Center, 60
  - Matula, R. A.  
Electronic Properties Information Center, 60
  - Touloukian, Y. S.  
Electronic Properties Information Center, 60  
Underground Excavation and Rock Properties Inform. Center, 156
- Physics**
- Barger, J. E.  
Bolt Beranek and Newman, Inc., 36
  - Baster, D. P.  
Naval Research Laboratory, 118
  - Cameron, W. C.  
World Data Center A: Rockets and Satellites, 174
  - Chan, K.  
World Data Center A: Rockets and Satellites, 174
  - Chaney, J. F.  
Electronic Properties Information Center, 60
  - Davis, L. R.  
World Data Center A: Rockets and Satellites, 174
  - Harrison, G. R.  
Georgia Inst. of Technology, Engineering Experiment Station, 71
  - Hilberg, R. H.  
World Data Center A: Rockets and Satellites, 174
  - James, H. M.  
Electronic Properties Information Center, 60
  - Jesser, W. A.  
Univ. of Virginia, Department of Material Sciences  
167
  - Kirby, D.  
Naval Air Engineering Center, 117
  - Kuhn, R.  
National Oceanographic Data Center, 114
  - Kulander, J. L.  
Lockheed Radiation Physics Group, 98
  - Kumer, J. B.  
Lockheed Radiation Physics Group, 98
  - Lupish, R. P.  
Knowledge Availability Systems Information Center  
93
  - Mason, A. A.  
University of Tennessee, Space Institute, 162
  - Maxwell, K. J.  
General Electric Co., High Voltage Laboratory, 69
  - Rockett, J.  
National Bureau of Standards, Center for Fire Research, 104
  - Schofield, N.  
World Data Center A: Rockets and Satellites, 174
  - Shaefer, W. H.

- Physics (cont'd)**
- Electronic Properties Information Center, 60
  - Teague, M. J.  
        World Data Center A: Rockets and Satellites, 174
  - Vette, J. I.  
        World Data Center A: Rockets and Satellites, 174
  - Williamson, R. B.  
        Univ. of California, Fire Research Group, 159
- Physiological Hazards**
- Tinklenberg, J. R.  
        Stanford Univ., Clinical Psychopharm. and Psycho-  
            phys. Lab., 150
- Physiology**
- Barlett, L.  
        Pennsylvania State Univ., Lab. for Human Perform-  
            ance Res., 136
  - Buskirk, E. R.  
        Pennsylvania State Univ., Lab. for Human Perform-  
            ance Res., 136
  - Elizondo, R. S.  
        Indiana University, Physiology Department, 78
  - Gahagan, H.  
        Pennsylvania State Univ., Lab. for Human Perform-  
            ance Res., 136
  - Hamlin, R. L.  
        Ohio State Univ., Physiological Fluid Mechanics  
            Res. Grp., 132
  - Hodgson, J.  
        Pennsylvania State Univ., Lab. for Human Perform-  
            ance Res., 136
  - Kamon, E.  
        Pennsylvania State Univ., Lab. for Human Perform-  
            ance Res., 136
  - Kolljas, J.  
        Pennsylvania State Univ., Lab. for Human Perform-  
            ance Res., 136
  - Loomis, J.  
        Pennsylvania State Univ., Lab. for Human Perform-  
            ance Res., 136
  - Magee, P. C.  
        Univ. of Pittsburgh, Dept. of Ind. Environ. Health  
            Sci., 161
  - Mendez, J.  
        Pennsylvania State Univ., Lab. for Human Perform-  
            ance Res., 136
  - Musacchia, X. J.  
        Dalton Research Center, 55
  - Nicholas, W. C.  
        Pennsylvania State Univ., Lab. for Human Perform-  
            ance Res., 136
  - South, F. E.  
        Dalton Research Center, 55
  - Tinklenberg, J. R.  
        Stanford Univ., Clinical Psychopharm. and Psycho-  
            phys. Lab., 150
- Plasticity**
- Christ, E. W.  
        National Bureau of Standards, Mechanical  
            Properties Section, 107
- Plastics**
- Hiltz, A. A.  
        Valley Forge Sp. Cent., Plastics and Adv. Compos-  
            ites Lab., 170
  - Pebley, H. B.  
        Plastics Technical Evaluation Center, 140
- Pollution**
- Iverson, W. P.  
        National Bureau of Standards, Mechanical  
            Properties Section, 107
  - Scallon, P.  
        Center for Short-Lived Phenomena, 38
- Polymers**
- Barker, R. E.  
        Univ. of Virginia, Department of Material Sciences  
            167
  - Einhorn, I. N.  
        University of Utah, Flammability Research Center  
            163
  - Mickelson, R. W.  
        University of Utah, Flammability Research Center  
            163
- Power Supplies**
- Merriman, J. H.  
        Lightning and Transients Research Inst., 97
- Product Safety**
- Senderoff, I.  
        Boeing Vertol Co., Product Assurance and System  
            Safety, 34
  - Canale, S.  
        Canale Research, 37
  - Gordon, R. B.  
        Aeronautronic Ford Corp. Safety Engineering Sec-  
            tion, 2
  - Jacobs, T. L.  
        Naval Weapons Support Center, 119
  - Rashid, K. R.  
        Consumer Product Safety Commission, 47
  - Trettin, H. D.  
        Boeing Aerospace Co., Product and System Safety  
            Org., 31
- Propellants**
- Gimler, J. R.  
        Allegany Ballistics Laboratory, 6
  - Kicly, D.  
        Pennsylvania State Univ., Applied Research  
            Laboratory, 135
  - Klein, M.  
        IIT Research Inst., 76
- Psychiatry**
- Haynes, H.  
        Federal Aviation Administration, Off. of Aviation  
            Medicine, 63
  - Packull, B.  
        Federal Aviation Administration, Off. of Aviation  
            Medicine, 63
- Psychology**
- Coates, G. D.  
        Old Dominion Univ., Performance Assessment  
            Laboratory, 134
  - Gillen, H. B.  
        Old Dominion Univ., Performance Assessment  
            Laboratory, 134
  - Tinklenberg, J. R.  
        Stanford Univ., Clinical Psychopharm. and Psycho-  
            phys. Lab., 150
- Pyrotechnics**
- Conkling, J. A.  
        Washington College, 173

- Quality Control**  
 Pfersich, E. P.  
 Coast Guard, Cargo and Hazardous Materials Division, 41
- Radar**  
 Ecker, H. A.  
 Georgia Inst. of Technology, Engineering Experiment Station, 71
- Radiation**  
 Berdjis, C. C.  
 Armed Forces Institute of Pathology, 14  
 Martin, J.  
 Environmental Protection Agency, Off. of Radiation Programs, 62  
 Volkert, W. A.  
 Dalton Research Center, 55
- Radiation Effects**  
 Jacobson, A. P.  
 Univ. of Michigan, Radiological Health Program 160  
 Whipple, G. H.  
 Univ. of Michigan, Radiological Health Program 160
- Radioactive Isotopes**  
 Heywood, F. F.  
 Oak Ridge National Laboratory, Health Physics Division, 129
- Radioactive Materials**  
 Rawi, R. R.  
 Coast Guard, Cargo and Hazardous Materials Division, 41
- Radioactive Wastes**  
 Plato, P. A.  
 Univ. of Michigan, Radiological Health Program 160  
 Whipple, G. H.  
 Univ. of Michigan, Radiological Health Program 160
- Railroads**  
 Houser, F. N.  
 Railroad Research Information Service, 143
- Reactor Safety**  
 Berger, J. D.  
 Oak Ridge Associated Univ., REAC/TS, 128  
 Khandar, M. K.  
 Cosmodyne, 49  
 Knuth, D. F.  
 Nuclear Regulatory Com., Off. of Inspection and Enforcement, 127  
 Stockinger, S.  
 Cosmodyne, 49
- Refractories**  
 McArdle, G.  
 Climax Molybdenum Co., 40
- Reliability**  
 Eagle, K.  
 Boeing Vertol Co., Product Assurance and System Safety, 34  
 Peyrot, A. H.  
 Univ. of Wisconsin, Engineering Experiment Station 169  
 Richards, E.
- Reliability (cont'd)**  
 Government-Industry Data Exchange Program, 72  
 Singpurwalla, N. D.  
 George Washington Univ., School of Engin. and Appl. Sci., 70
- Research and Development**  
 Nelson, R. D., LTC  
 U. S. Army Agency for Aviation Safety, 154
- Rocks**  
 Judd, W. R.  
 Underground Excavation and Rock Properties Inform. Center, 156
- Rubber**  
 Johnson, L.  
 Crane Packing Company, 50  
 Tsou, D. M.  
 Crane Packing Company, 50
- Safety Analysis**  
 Allan, D. S.  
 Arthur D. Little, Safety and Fire Technology Unit 17  
 Clark, C. C.  
 Com. for the Advancement of Public Interest Organizations, 43  
 Cranston, G. F.  
 Cranston Research Inc., 51  
 Kalelkar, A. S.  
 Arthur D. Little, Safety and Fire Technology Unit 17  
 Mothersbaugh, L. L.  
 Army Materiel Command Safety Office, 16  
 Nupadensky, A.  
 IIT Research Inst., 76
- Philipson, L. L.  
 Institute of Safety and Systems Management, Research Center, 82  
 Picklesimer, M. L.  
 Picklesimer, M.L., Consultant, 139  
 Rowen, J.  
 National Bureau of Standards, Center for Fire Research, 104  
 Sweningen, W. B.  
 Aeromutronic Ford Corp. Safety Engineering Section, 2
- Safety Engineering**  
 Barenblau, K. E.  
 International Safety Academy, 90  
 Canaday, R. M.  
 Institute of Safety and Systems Management, Safety Center, 84  
 Elkow, J. D.  
 New York Univ., Center for Safety, 120  
 Grimaldi, J. V.  
 New York Univ., Center for Safety, 120  
 Holmgren, M. E.  
 International Safety Academy, 90  
 Montgomery, L. C.  
 Jet Propulsion Lab., 91  
 Richardson, R. H.  
 Allegany Ballistics Laboratory, 6  
 Tichauer, E. R.  
 New York Univ., Center for Safety, 120
- Safety Procedures**  
 Baird, J. D.

- Safety Procedures (cont'd)**
- Institute of Safety and Systems Management, Research Center, 82
  - Roylance, H. M.
  - Roylance, Herbert M., Consultant, 145
- Security**
- Faley, J.
  - Univ. of Wisconsin, Engineering Experiment Station 5
  - Kelly, J.
  - International Association of Chiefs of Police, 86
  - Lipson, M.
  - New York Univ., Center for Safety, 120
  - Oliphant, H. G.
  - Airport Operators Council International, 5
- Sensors**
- Cook, G.
  - Univ. of Virginia, Department of Electrical Engineering, 165
  - Goodman, R. M.
  - Georgia Inst. of Technology, Engineering Experiment Station, 71
  - McVey, E. S.
  - Univ. of Virginia, Department of Electrical Engineering, 165
- Ship Hulls**
- Wenzel, E. S.
  - American Bureau of Shipping, 10
- Shipping**
- Doherty, E. J.
  - American Bureau of Shipping, 10
  - Jackson, F. J.
  - Bolt Beranek and Newman, Inc., 36
  - Ritola, A. P.
  - American Bureau of Shipping, 10
  - Yohe, R. E.
  - American Bureau of Shipping, 10
- Shipping Regulations**
- Currie, Capt. A. B.
  - National Cargo Bureau, Inc., 108
  - Dobson, Capt. R. C.
  - National Cargo Bureau, Inc., 108
  - Farnsworth, Capt. W. L.
  - National Cargo Bureau, Inc., 108
  - Miles, Capt. F. B.
  - National Cargo Bureau, Inc., 108
  - Wilson, Capt. G. A.
  - National Cargo Bureau, Inc., 108
- Shock Waves**
- Chem, T.
  - Lightning and Transients Research Inst., 97
- Solar Radiation**
- Schoolman, S. A.
  - Lockheed Radiation Physics Group, 98
- Spectroscopy**
- Thorngate, J.
  - Oak Ridge National Laboratory, Health Physics Division, 129
- Standards**
- Barr, J. W.
  - Aluminum Association, Inc., 8
  - Benjamin, I.
  - National Bureau of Standards, Center for Fire Re-
- Standards (cont'd)**
- search, 104
  - Buchan, R.
  - National Forest Products Association, 110
  - Hitchings, W.
  - National Forest Products Association, 110
  - Jones, L.
  - IIT Research Inst., 76
  - Loeffler, E. J.
  - Joint Industrial Council, 92
- Statistics**
- Parrella, B. C.
  - Airport Operators Council International, 5
  - Recht, J. L.
  - National Safety Council, 116
  - Ricks, R. C.
  - Oak Ridge Associated Univ., REAC/TS, 128
  - Sutton, J. M.
  - Allegany Ballistics Laboratory, 6
  - Zugzda, M.
  - National Center for Health Statistics, 109
- Steels**
- Barsom, J. D.
  - Barsom, J. M., Consultant, 25
- Stress Analysis**
- Cheng, S.
  - Univ. of Wisconsin, Engineering Experiment Station 169
  - Stinchcomb, W. W.
  - Virginia Polytech. Inst., Dept. of Engin. Sci. and Mech., 171
- Structural Engineering**
- Barton, F. W.
  - Univ. of Virginia, Department of Civil Engineering 164
  - Becker, H.
  - Becker, Herbert, Consultant, 28
  - Bihr, J. E.
  - International Conference of Building Officials, 88
  - Carter, T. H.
  - International Conference of Building Officials, 88
  - Eppink, R. T.
  - Univ. of Virginia, Department of Civil Engineering 164
  - Gaylord, C. N.
  - Univ. of Virginia, Department of Civil Engineering 164
  - Jennings, R. L.
  - Univ. of Virginia, Department of Civil Engineering 164
  - Kinnier, H. L.
  - Univ. of Virginia, Department of Civil Engineering 164
  - Lovell, E. G.
  - Univ. of Wisconsin, Engineering Experiment Station 169
  - Morris, D.
  - Univ. of Virginia, Department of Civil Engineering 164
  - Negaard, G. R.
  - Aerospace Structures Information and Analysis Center, 4
  - Peyrot, A. H.
  - Univ. of Wisconsin, Engineering Experiment Station 169

- Structural Engineering (cont'd)**
- Polivka, M.  
Univ. of California, Department of Civil Engineering, 158
  - Rauhut, J. B.  
Austin Research Engineers, Inc., 21
  - Salmon, C. G.  
Univ. of Wisconsin, Engineering Experiment Station, 169
  - Schlack, A. L.  
Univ. of Wisconsin, Engineering Experiment Station, 169
  - Treybig, H. J.  
Austin Research Engineers, Inc., 21
  - Ungar, E. E.  
Bolt Beranek and Newman, Inc., 36
  - Wang, C. K.  
Univ. of Wisconsin, Engineering Experiment Station, 169
  - Watson, D. R.  
International Conference of Building Officials, 88
- Structural Failure**
- Longinow, A.  
IIT Research Inst., 76
  - Maynor, H. W., Jr.  
Auburn Univ., Materials Engineering Dept., 20
  - Wilcox, R. C.  
Auburn Univ., Materials Engineering Dept., 20
- Structural Materials**
- Barsom, J. D.  
Barsom, J. M., Consultant, 25
  - Becker, H.  
Becker, Herbert, Consultant, 28
  - Cornish, R.  
IIT Research Inst., 76
  - McCormick, F. C.  
Univ. of Virginia, Department of Civil Engineering, 164
  - Raymond, L.  
Aerospace Corp., Energy & Transportation Division, 3
- Superconductors**
- Keller, W. E.  
Los Alamos Scientific Lab., Cryogenic Engineering Section, 99
  - Robertis, B. W.  
Superconductive Materials Data Center, 151
  - Zapata, R. N.  
Univ. of Virginia, Dept. of Engineering Sci. and Syst., 166
- Survival**
- Pruyn, R.  
Boeing Vertol Co., Product Assurance and System Safety, 34
- Systems Engineering**
- Sand, E.  
Boeing Vertol Co., Product Assurance and System Safety, 34
  - Bender, M.  
Vitro Labs., 172
  - Canale, S.  
Cainate Research, 37
  - Cranston, G. F.  
Cranston Research Inc., 51
  - Custen, L.
- Systems Engineering (cont'd)**
- Dalton, W. F.  
New York Univ., Center for Safety, 120
  - Demetsky, M. J.  
Univ. of Virginia, Department of Civil Engineering, 164
  - Goldberg, S.  
Vitro Labs., 172
  - Grosje, V. L.  
George Washington Univ., School of Engin. and Appl. Sci., 70
  - Hudson, W. R.  
Austin Research Engineers, Inc., 21
  - Lata, E.  
Naval Air Engineering Center, 117
  - Leach, T. M.  
Naval Weapons Support Center, 119
  - McCullough, B. F.  
Austin Research Engineers, Inc., 21
  - McMurdo, R. B.  
Boeing Aerospace Co., Safety Engineering, 32
  - Morris, D.  
Univ. of Virginia, Department of Civil Engineering, 164
  - O'Tyson, C.  
Boeing Aerospace Co., Safety Engineering, 32
  - Saben, M.  
Vitro Labs., 172
  - Slote, L.  
New York Univ., Center for Safety, 120
  - Trettin, H. D.  
Boeing Aerospace Co., Product and System Safety Org., 31
- Telecommunications**
- Clarke, F.  
National Bureau of Standards, Center for Fire Research, 104
  - Robertson, D. W.  
Georgia Inst. of Technology, Engineering Experiment Station, 71
- Tests**
- Clifford, D. W.  
McDonnell Aircraft Co., Lightning Simulation Laboratory, 102
  - Clingman, P.  
York Research Corporation, 175
  - Dickason, J.  
Atlas Testing Laboratories, Inc., 19
  - Dziedzic, J.  
Crane Packing Company, 50
  - Hunt, R. G.  
Allegany Ballistics Laboratory, 6
  - Jones, M. H.  
Institute of Safety and Systems Management, Research Center, 82
  - Parker, W.  
National Bureau of Standards, Center for Fire Research, 104
  - Poppe, E.  
Atlas Testing Laboratories, Inc., 19
  - Robertson, A.  
National Bureau of Standards, Center for Fire Research, 104
  - Schulte, E. H.  
McDonnel Aircraft Co., Lightning Simulation

- Tests (cont'd)**
- McDonnell Aircraft Co., Lightning Simulation Laboratory, 102
- Textiles**
- Hall, D.  
Auburn Univ., Materials Engineering Dept., 20
- Thermal Radiation**
- Bridges, J.  
IIT Research Inst., 76
- Thermodynamics**
- Dousin, D. R.  
Bartlesville Energy Research Center, 26
  - Toufoukian, Y. S.  
Electronic Properties Information Center, 60
- Toxicity**
- Beckett, T. A.  
Aeronutronic Ford Corp. Safety Engineering Section, 2
  - Birky, M.  
National Bureau of Standards, Center for Fire Research, 104
  - Halverson, Marlene  
Com. for the Advancement of Public Interest Organizations, 43
  - Liu, D.  
Stanford Research Inst., Toxicology Department  
149
  - Morissette, M. D.  
Coast Guard, Cargo and Hazardous Materials Division, 4i
  - Newell, G.  
Stanford Research Inst., Toxicology Department  
149
  - Scheel, L. D.  
Natl. Inst. of Occupational Safety and Health, Toxicol. Br., 113
  - Verhulst, H. L.  
Food and Drug Administration, Poison Control Program, 65
  - Wands, R. C.  
Advisory Center on Toxicology, 1
- Traffic**
- Karaghevzoff, T.  
New York Univ., Center for Safety, 120
  - Parrella, B. C.  
Airport Operators Council International, 5
- Traffic Safety**
- Elkow, J. D.  
New York Univ., Center for Safety, 120
  - Gordon, J. R.  
New York Univ., Center for Safety, 120
  - Karaghevzoff, T.  
New York Univ., Center for Safety, 120
- Transportation**
- Baird, J. D.
- Transportation (cont'd)**
- Institute of Safety and Systems Management, Research Center, 82
  - Demetsky, M. J.  
Univ. of Virginia, Department of Civil Engineering  
164
  - Doherty, E. J.  
American Bureau of Shipping, 10
  - Harton, E. E.  
Systems Safety Society, 152
  - Hoel, L. A.  
Univ. of Virginia, Department of Civil Engineering  
164
  - Sokolsky, S.  
Aerospace Corp., Energy & Transportation Division  
3
  - Watts, S.  
Manufacturing Chemists Assn., Inc., Information Services, 100
- Ultraviolet Radiation**
- Bridges, J.  
IIT Research Inst., 76
- Vehicles (Land)**
- Glascott, M. E.  
International Safety Academy, 90
- Vibration**
- Brown, N. A.  
Bolt Beranek and Newman, Inc., 36
  - Kessel, P. G.  
Univ. of Wisconsin, Engineering Experiment Station  
169
  - Ungar, E. E.  
Bolt Beranek and Newman, Inc., 36
- Waste Disposal**
- Parker, C. E.  
Univ. of Virginia, Department of Civil Engineering  
164
  - Plato, P. A.  
Univ. of Michigan, Radiological Health Program  
160
- Water Pollution**
- Halverson, Marlene  
Com. for the Advancement of Public Interest Organizations, 43
- Water Resources**
- Brown, H.  
Manufacturing Chemists Assn., Inc., Information Services, 100
- Wood**
- Holcombe, R.  
National Forest Products Association, 110